

SCHOOL STREET RESIDENTIAL

502 S SCHOOL STREET

BOERNE, TEXAS

(SUBDIVISION INFRASTRUCTURE PLANS)

LEGAL DESCRIPTION:

BEING A 4.8328 ACRE TRACT OF LAND OUT OF THE ANTONIO LOCKMAR SURVEY NO. 178, KENDALL COUNTY, TEXAS, AND BEING COMPRISED OF A CALLED 4.69 ACRE TRACT AS DESCRIBED IN WARRANTY DEED RECORDED IN DOCUMENT NO. 2021-352232, SAVE & EXCEPT THE 0.838 ACRE TRACT AS DESCRIBED IN SPECIAL WARRANTY DEED RECORDED IN DOCUMENT NO. 352267, AND BEING ALL OF THAT 0.919 OF AN ACRE AS DESCRIBED IN SPECIAL WARRANTY DEED RECORDED IN DOCUMENT NO. 2021-352266, ALL OF THE OFFICIAL PUBLIC RECORDS OF KENDALL COUNTY, TEXAS.

FLOODPLAIN NOTE:

ACCORDING TO FLOOD INSURANCE RATE MAP, PANEL 48259C0415F, DATED DECEMBER 17, 2010, AND BEST AVAILABLE DATA FROM SAN ANTONIO RIVER AUTHORITY (SARA) THE SITE IS LOCATED IN ZONE X AND IS NOT WITHIN THE 100-YEAR FLOODPLAIN.

EDWARDS AQUIFER RECHARGE NOTE:

THE SITE IS NOT LOCATED OVER THE EDWARDS AQUIFER RECHARGE ZONE AND DOES NOT HAVE TO COMPLY WITH TCEQ REGULATIONS FOR DEVELOPMENT OVER THE RECHARGE ZONE.

VESTED RIGHTS DETERMINATION (#VR2022-010):

THIS SITE IS VESTED TO DEVELOPMENT REGULATIONS IN EFFECT JANUARY 25, 2021.

VEGETATION NOTE:

RE-VEGETATE ALL DISTURBED AREAS BY SEEDING WITH BERMUDA. CONTRACTOR IS RESPONSIBLE FOR TEMPORARY IRRIGATION AND OR WATERING UNTIL 95% GROWTH HAS BEEN ESTABLISHED. 95% COVER MUST BE ESTABLISHED UPON PROJECT COMPLETION TO RECEIVE ACCEPTANCE FROM THE CITY.

DEVELOPER:

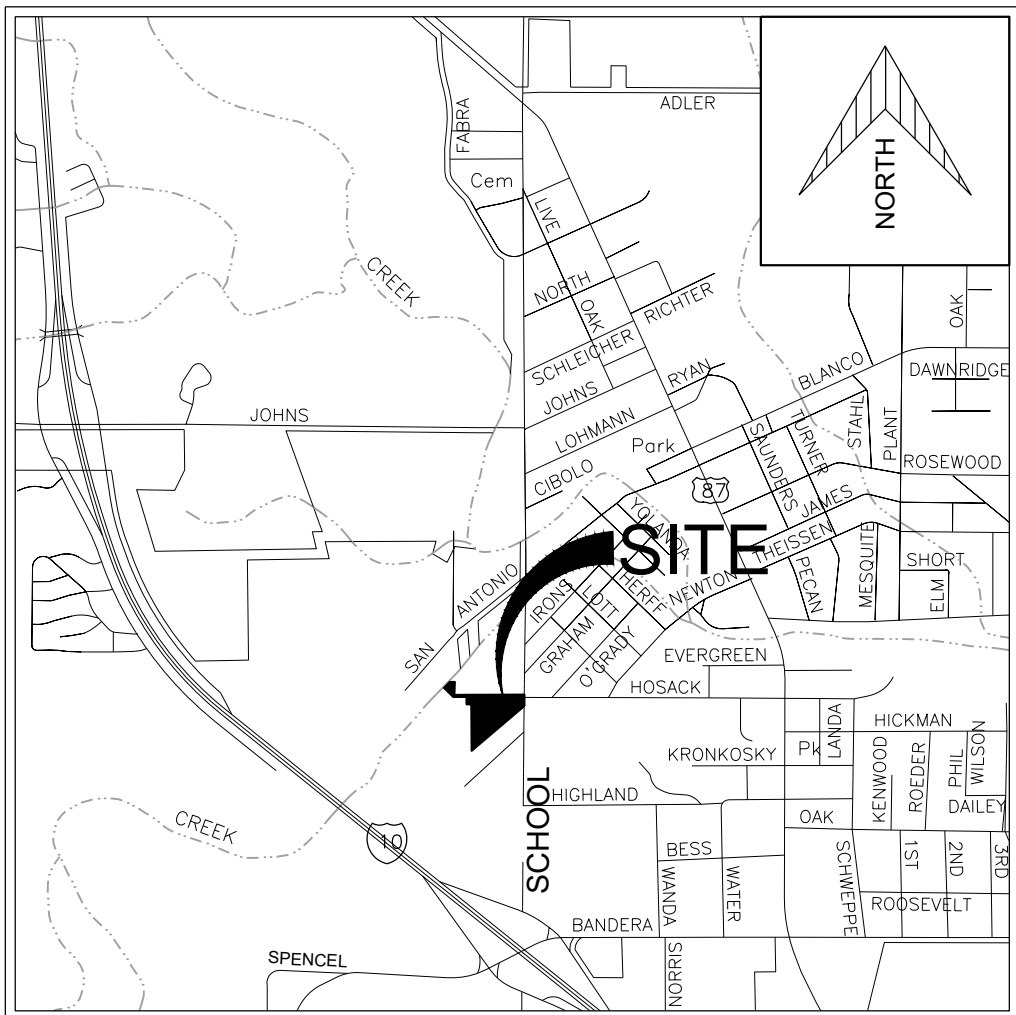
BEAZER HOMES
11467 HUEBNER RD, SUITE 225
SAN ANTONIO, TEXAS 78230
TEL: (210) 877-5900 EXT 208
CONTACT: JOHN FRISENHAHN

ENGINEER:

MACINA-BOSE-COPELAND & ASSOC., INC.
1035 CENTRAL PARKWAY NORTH
SAN ANTONIO, TEXAS 78232
TEL: (210) 545-1122
CONTACT: RICHARD HENDRIX, P.E.

SEQUENCE OF CONSTRUCTION

- TEMPORARY EROSION AND SEDIMENTATION CONTROLS ARE TO BE INSTALLED AS INDICATED ON THE APPROVED SITE PLAN OR SUBDIVISION CONSTRUCTION PLAN AND IN ACCORDANCE WITH THE EROSION CONTROL PLAN (ECP) AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) THAT IS REQUIRED TO BE POSTED ON THE SITE. INSTALL TREE PROTECTION, AND INITIATE TREE MITIGATION MEASURES (IF APPLICABLE).
- TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE EROSION CONTROL PLAN (ECP) AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE.
- BEGIN SITE CLEANING/CONSTRUCTION (OR DEMOLITION) ACTIVITIES.
- PERMANENT WATER QUALITY PONDS OR CONTROLS WILL BE CLEANED OUT AND FILTER MEDIA WILL BE INSTALLED PRIOR TO CONCURRENTLY WITH REVEGETATION OF THE SITE.
- COMPLETE CONSTRUCTION AND START REVEGETATION OF THE SITE AND INSTALLATION OF LANDSCAPING.
- UPON COMPLETION OF THE SITE CONSTRUCTION AND REVEGETATION OF A PROJECT SITE, THE DESIGN ENGINEER SHALL SUBMIT AN ENGINEER'S LETTER OF CONCURRENCE BEARING THE ENGINEER'S SEAL, SIGNATURE, AND DATE TO THE DEVELOPMENT SERVICES DEPARTMENT INDICATING THAT CONSTRUCTION, INCLUDING REVEGETATION, IS COMPLETE AND IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR.
- UPON COMPLETION OF LANDSCAPE INSTALLATION OF A PROJECT SITE, THE LANDSCAPE ARCHITECT SHALL SUBMIT A LETTER OF CONCURRENCE TO THE DEVELOPMENT SERVICES DEPARTMENT INDICATING THAT THE REQUIRED LANDSCAPING IS COMPLETE AND IN SUBSTANTIAL CONFORMITY WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR.
- AFTER A FINAL INSPECTION HAS BEEN CONDUCTED BY THE CITY INSPECTOR AND WITH APPROVAL FROM THE CITY INSPECTOR, REMOVE THE TEMPORARY EROSION AND SEDIMENTATION CONTROLS AND COMPLETE ANY NECESSARY FINAL REVEGETATION RESULTING FROM REMOVAL OF THE CONTROLS. CONDUCT ANY MAINTENANCE AND REHABILITATION OF THE WATER QUALITY PONDS OR CONTROLS.



LOCATION MAP
SCALE: 1" = 2,000'

Sheet List Table	
SHEET NUMBER	SHEET TITLE
C01.00	COVER SHEET
C01.01	SUBDIVISION PLAT
C01.02	SUBDIVISION PLAT - 2
C02.00	GENERAL NOTES
C02.01	CITY NOTES
C03.00	EX. CONDITIONS & DEMOLITION PLAN
C04.00	EROSION CONTROL PLAN
C04.01	EROSION CONTROL DETAILS
C04.02	PRIVATE LID POND
C04.03	PRIVATE LID POND DETAILS 1
C04.04	PRIVATE LID POND DETAILS 2
C04.05	PRIVATE LID POND DETAILS 3
C05.00	HOSACK STREET PLAN AND PROFILE
C05.01	HOSACK STREET CUL-DE-SAC P&P
C05.02	SIGNAGE PLAN
C06.00	STREET DETAILS 1
C06.01	STREET DETAILS 2
C07.00	FIRE PROTECTION SITE PLAN
C08.00	LOT GRADING PLAN
C09.00	DRAIN A & B - PLAN & PROFILE
C09.01	PRIVATE CHANNEL PLAN AND PROFILE
C09.02	DRAIN DETAILS
C10.00	UTILITY PLAN
C10.01	UTILITY DETAILS
C10.02	UTILITY DETAILS - 2
C10.03	UTILITY DETAILS - 3
C11.00	SANITARY SEWER COVER SHEET
C11.01	OVERALL SEWER PLAN
C11.02	SEWER PLAN AND PROFILE STA 0+00 - 5+60
C11.03	SEWER PLAN AND PROFILE STA 5+60 - END
C11.04	SANITARY SEWER DETAILS
C11.05	SANITARY SEWER DETAILS - 2
C12.00	WATER COVER SHEET
C12.01	OVERALL WATER PLAN
C12.02	WATER DETAILS
C13.00	S1 OF 2
C13.01	S2 OF 2
C14.00	URD ELECTRICAL PLAN
C13.00	S1 OF 2
C13.01	S2 OF 2
C14.00	URD ELECTRIC AND GAS PLAN

NOTE:
SHEETS OMITTED FROM INDEX WERE NOT USED IN PREPARING THIS PLAN SET.

PRELIMINARY PLAT REVIEW (03-23-2024)

- REVISED CUL-DE-SAC RADIUS ON PLAN SHEET C07.00 PER CITY COMMENTS.
- ADJUSTED WATER, SEWER AND FORCE MAIN LOCATION ON PLAN SHEETS C10.00, C11.01 AND C12.01 PER CITY COMMENTS.
- UPDATED SEWER PROFILE ON PLAN SHEETS C11.02 AND C11.03.

PUBLIC SEWER PLAN REVIEW (03-20-2024)

- EXTENDED GRAVITY SEWER MAIN AND REMOVED LIFT STATION FROM PLAN SET.
- UPDATED SEWER PROFILE ON PLAN SHEETS C11.02 AND C11.03.
- REMOVED PLAN SHEETS C11.06 - C11.10.
- RE-ISSUED PLAN SHEETS C01.00, C04.00, C04.02, C05.01, C05.02, C07.00, C08.00, C09.00, C09.01, C10.00, C11.01, C11.02, C11.03, AND C12.01.

PUBLIC SEWER PLAN REVIEW (05-07-2024)

- RE-ISSUED PLAN SHEETS C01.00, C04.00, C04.02, C05.01, C05.02, C07.00, C08.00, C09.00, C09.01, C10.00, C11.01, C11.02, C11.03, C12.01 AND C14.00.

ACCEPTED FOR CONSTRUCTION:

CITY ENGINEER _____ DATE _____
CITY OF BOERNE, TEXAS

NOTE:
THE CITY ENGINEER'S SIGNATURE AFFIXED TO THIS DOCUMENT INDICATES THAT THE CITY ENGINEER AND CITY STAFF HAS REVIEWED THIS DOCUMENT AND HAS FOUND IT TO BE IN GENERAL CONFORMANCE WITH THE CITY'S ENGINEERING DESIGN MANUAL, THE UDC, OR APPROVED VARIANCES TO THE SAME. THE CITY ENGINEER, THROUGH THE ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY, OTHER THAN STATED ABOVE, FOR THE COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT. RESPONSIBILITY FOR THE ENGINEERING ADEQUACY OF THE FACILITIES DEPICTED IN THIS DOCUMENT LIES SOLELY WITH THE REGISTERED/LICENSED PROFESSIONAL ENGINEER WHOSE SEAL AND SIGNATURE IS AFFIXED TO THIS DOCUMENT.

CONSTRUCTION OF ALL FACILITIES TO BE DEDICATED TO THE PUBLIC SHALL BE PERFORMED PER THE REQUIREMENTS OF THE CITY OF BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LATEST EDITION.

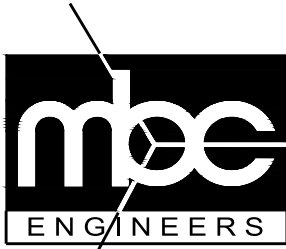
ISSUED FOR PERMIT
05-07-2024

PLAT ID# -
DESIGN RH
DRAWN RH
CHECKED DLA
DATE 01-11-2021

JOB NO.

32653-BOERNE

C01.00

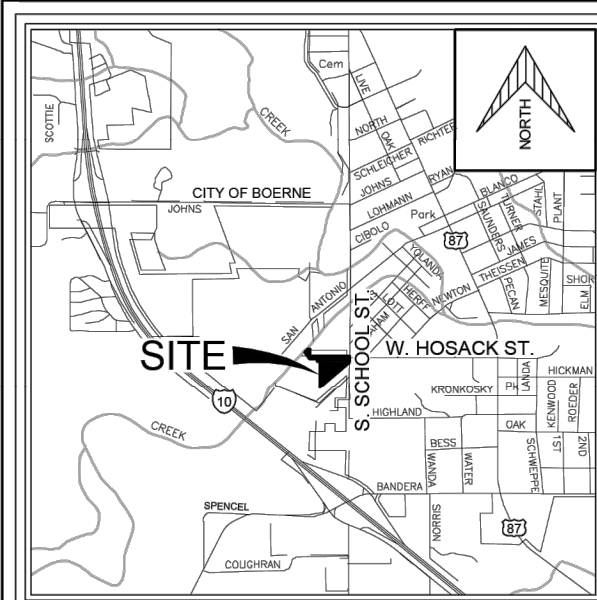


MACINA • BOSE • COPELAND & ASSOC., INC.
CONSULTING ENGINEERS AND LAND SURVEYORS

1035 Central Parkway North, San Antonio, Texas 78232
(210) 545-1122 Fax (210) 545-9302 www.mbcengineers.com
FIRM REGISTRATION NUMBER: T.B.P.E. F-784 & T.B.P.L.S. 10011700



PRIMARY CONTACT PERSON: RICHARD HENDRIX, P.E.



LOCATION MAP
NOT TO SCALE

LEGEND:

- (A) 10' UTILITY EASEMENT
- (B) 12' RIGHT-OF-WAY DEDICATION TO THE CITY OF BOERNE (0.034 ACRES)
- (C) VAR. WD. PRIVATE DRAINAGE EASEMENT (0.068 ACRES)
- (D) 31" PRIVATE DRAINAGE EASEMENT (0.131 ACRES)
- (E) 20' UTILITY EASEMENT (0.068 ACRES) (OFF-LOT)
- 1 UNPLATTED: SORACE PROPERTIES, LLC (VOLUME 1215, PAGE 366 DEED PLAT RECORDS OF KENDALL COUNTY)
- 2 UNPLATTED: BARDEN RONALD D. & ELOSA (VOLUME 1652, PG. 896 DEED PLAT RECORDS OF KENDALL COUNTY)
- 1/2" IRON ROD WITH "CAP" STAMPED "MBC ENGINEERS" SET
- 1/2" IRON ROD FOUND (UNLESS OTHERWISE NOTED)
- 1/4" EXISTING CONTOURS
- LAND TIE/HOOK
- LIMITS OF LOT DOC #2021-320266
- AREA OF STEEP SLOPE (15% OR GREATER)

SUMMARY TABLE	
NUMBER OF RESIDENTIAL LOTS	12
NUMBER OF OPEN SPACE LOTS	2
ACREAGE OF RIGHT-OF-WAY	0.883 ACRES
AREA OF SMALLEST LOT	0.185 ACRES
GROSS DENSITY (HOMES/ACRE)	2.5
ACREAGE OF OPEN SPACE	1.44 ACRES

BLOCK PERIMETER LENGTH	
BLOCK	PERIMETER (FT)
1	1,412'
2	1,699'

STATE OF TEXAS
COUNTY OF BEXAR

I HEREBY CERTIFY THAT THIS PLAT IS TRUE AND CORRECT AND WAS PREPARED FROM AN ACTUAL SURVEY OF THE PROPERTY MADE ON THE GROUND UNDER MY SUPERVISION.

PRELIMINARY
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF INTERIM REVIEW AND IT IS NOT INTENDED FOR OFFICIAL FILING OR RECORDING.

REGISTERED PROFESSIONAL LAND SURVEYOR
JOEL CHRISTIAN JOHNSON, R.P.L.S. NO. 5578

SWORN TO AND SUBSCRIBED BEFORE ME, THIS _____ DAY OF _____, A.D. 2024.

NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS

STATE OF TEXAS
COUNTY OF BEXAR

I HEREBY CERTIFY THAT PROPER ENGINEERING CONSIDERATION HAS BEEN GIVEN THIS PLAT TO THE MATTERS OF STREETS, LOTS, AND DRAINAGE LAYOUT. TO THE BEST OF MY KNOWLEDGE THIS PLAT CONFORMS TO ALL REQUIREMENTS OF THE SUBDIVISION ORDINANCE, EXCEPT FOR THOSE VARIANCES GRANTED BY THE PLANNING AND ZONING COMMISSION OF THE CITY OF BOERNE.

LICENSED PROFESSIONAL ENGINEER NO. 66073

SWORN TO AND SUBSCRIBED BEFORE ME, THIS _____ DAY OF _____, A.D. 2024.

NOTARY PUBLIC IN AND FOR THE STATE OF TEXAS

Date: Mar 13, 2024, 12:39pm User ID: rcharles
File: P:\Boerne\32653-502 S School St\Design\Plats\32653-sh-plat.dwg

SURVEYOR'S NOTES:

1. PROPERTY CORNERS ARE MONUMENTED WITH A CAP OR DISK MARKED "MBC ENGINEERS" UNLESS NOTED OTHERWISE.

2. BEARINGS AND COORDINATES SHOWN ARE BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD83) FROM THE TEXAS COORDINATE SYSTEM ESTABLISHED FOR THE SOUTH CENTRAL ZONE DISPLAYED IN GRID VALUES DERIVED FROM THE NGS COOPERATIVE CORDS NETWORK.

DRAINAGE EASEMENT NOTE:

DRAINAGE, WATER DIVERSION, AND SANITARY CONTROL, INCLUDING WITHOUT LIMITATION, WALLS, BEDS, EMBANKMENTS, SPILLWAYS, APPURTENANCES, AND OTHER ENGINEERED DEVICES (THE "DRAINAGE SYSTEM").

TOGETHER WITH THE RIGHT OF INGRESS AND EGRESS OVER PASSABLE AREAS OF THE GRANTOR'S ADJACENT LAND, WHEN THE DELINEATED ENTRANCE POINT THAT ABUTS PUBLIC RIGHT-OF-WAY IS OBSTRUCTED AND/OR INACCESSIBLE, EITHER IN WHOLE OR IN PART, IN ORDER TO ACCESS OR LEAVE THE EASEMENT FOR THE PURPOSE OF CONSTRUCTING, RECONSTRUCTING, INSPECTING, PATROLLING, OPERATING, MAINTAINING, REPAIRING, AND REMOVING THE DRAINAGE SYSTEM, THE RIGHT TO CHANGE THE SIZE OF THE DRAINAGE SYSTEM WITHIN THE EASEMENT; THE RIGHT TO RELOCATE ALONG THE SAME GENERAL DIRECTION OF THE DRAINAGE SYSTEM; THE RIGHT TO CREATE AND/OR DREDGE A STREAM COURSE, REFILL, OR DISCONTINUE SUCH STREAM COURSE; ESTABLISH OR CHANGE STREAM EMBANKMENTS WITHIN THE EASEMENT; INSTALL STORM SEWER SYSTEMS, CULVERTS, WATER GAPS, AND PROTECTING RAILS, THE RIGHT TO REMOVE FROM THE EASEMENT ALL TREES AND PARTS THEREOF, OR OTHER OBSTRUCTIONS, WHICH REASONABLY ENDANGER OR MAY REASONABLY INTERFERE WITH THE EFFICIENCY OF THE DRAINAGE SYSTEM, AND THE RIGHT TO PLACE TEMPORARY STRUCTURES FOR USE IN CONSTRUCTING OR REPAIRING THE DRAINAGE SYSTEM.

WITH RESPECT TO THE DRAINAGE SYSTEM, IT IS EXPRESSLY AGREED AND UNDERSTOOD BY ALL PARTIES HERETO, THAT THE INTENTION IS TO IMPROVE CONDITIONS OF SANITATION AND WATER DRAINAGE CONTROL ON THE PROPERTY FOR THE BENEFIT OF THE PROPERTY, ADJACENT PROPERTY, AND THE COMMUNITY, BUT THE CITY DOES NOT GUARANTEE OR WARRANT THAT SUCH CONTROL WORK WILL BE EFFECTIVE, NOR DOES THE CITY ASSUME ANY ADDITIONAL LIABILITY WHATSOEVER FOR THE EFFECTS OF FLOOD, STANDING WATER, OR DRAINAGE ON OR TO THE PROPERTY, OR ANY OTHER PROPERTY OR PERSONS THAT MIGHT BE AFFECTED BY SAID STREAM, WASH, OR GULLY IN ITS NATURAL STATE OR AS CHANGED BY THE CITY.

1. THE GRANTOR SPECIFICALLY RESERVES THE RIGHT TO USE ALL OR ANY PART OF THE EASEMENT FOR ANY PURPOSE, WHICH DOES NOT DAMAGE, DESTROY, INJURE, AND/OR UNREASONABLY INTERFERE WITH THE GRANTEE'S USE OF THE EASEMENT.

2. THE GRANTEE SHALL MAKE COMMERCIALLY REASONABLE EFFORTS TO ENSURE THE DAMAGE TO THE PROPERTY IS MINIMIZED AND WILL AT ALL TIMES, AFTER DOING ANY WORK IN CONNECTION WITH THE DRAINAGE SYSTEM, RESTORE THE PROPERTY TO THE CONDITION IN WHICH THE PROPERTY WAS FOUND BEFORE SUCH WORK WAS UNDERTAKEN TO THE EXTENT THAT SUCH RESTORATION IS REASONABLE IN ACCORDANCE WITH THE GRANTEE'S USUAL AND CUSTOMARY PRACTICES.

3. THE GRANTEE SHALL MAKE NECESSARY MODIFICATIONS AND IMPROVEMENTS TO CONFORM WITH THE CITY OF BOERNE DRAINAGE POLICY AND PLAN AT SUCH A TIME AS THE SAID PLAN AND POLICY ARE ENACTED BY CITY COUNCIL OF THE CITY OF BOERNE, TEXAS.

GATES ACROSS EASEMENT NOTE:

DOUBLE SWING GATES WITH A MINIMUM CLEAR OPENING OF 12 FEET WIDE SHALL BE INSTALLED WHEREVER FENCES CROSS UTILITY AND DRAINAGE EASEMENTS.

IMPACT FEE ASSESSMENT NOTE:

ASSESSMENT AND COLLECTION OF THE CITY OF BOERNE WATER AND WASTEWATER UTILITIES' CAPITAL RECOVERY FEES SHALL BE THE AMOUNT PER LOT AS SET FORTH IN CITY ORDINANCE No. 2019-66, SECTION 1.08.

DRAINAGE BASIN NOTE:

NO PART OF THE SUBDIVISION IS LOCATED WITHIN A DRAINAGE BASIN WHICH IS UPSTREAM FROM A CITY WATER SUPPLY LAKE.

BOA VARIANCE NOTE:

THIS SUBDIVISION RECEIVED BOARD OF ADJUSTMENTS VARIANCE APPROVAL TO APPLY THE STANDARD LOT TYPE ON JUNE 16, 2021.

Line Table		
Line #	Bearing	Length
L1	S 00°02'30" W	116.84'
L2	S 67°15'23" W	21.63'
L3	S 89°48'01" W	30.29'
L4	N 00°01'24" W	77.47'
L5	S 89°3'34" W	137.46'
L6	N 45°54'08" W	122.60'
L7	N 47°51'21" E	13.56'
L8	N 58°15'05" E	25.86'
L9	N 35°20'46" E	57.67'
L10	S 89°59'24" E	36.74'
L11	S 01°55'29" W	135.35'

Line Table		
Line #	Bearing	Length
L12	N 00°02'30" E	79.89'
L13	S 89°57'30" E	106.41'
L14	N 46°27'34" E	168.69'
L15	N 89°36'26" E	3.25'
L16	S 00°21'29" E	54.00'
L17	S 89°36'26" W	3.22'
L18	S 46°27'34" W	168.69'
L19	N 89°57'30" W	106.41'
L20	S 89°46'01" W	20.00'
L21	S 00°21'29" E	112.11'
L22	S 30°37'46" E	28.48'

TREE TABLE			
POINT #	SPECIES	CIRCUMFERENCE (IN)	TOTAL
57	LIVE OAK	125.7	
58	LIVE OAK	88.0	
62	LIVE OAK	100.5	
63	LIVE OAK	95.8	
66	LIVE OAK	102.1	
71	LIVE OAK	84.8	
103	LIVE OAK	108.4	
104	LIVE OAK	133.5	
106	LIVE OAK	86.4	
109	LIVE OAK	80.1	
111	LIVE OAK	84.8	
112	LIVE OAK	103.7	
113	LIVE OAK	94.2	
114	LIVE OAK	110.0	
115	LIVE OAK	110.0	
116	LIVE OAK	100.5	
118	LIVE OAK	114.7	
119	LIVE OAK	110.0	
123	LIVE OAK	106.8	
125	LIVE OAK	106.8	
126	LIVE OAK	91.1	
128	LIVE OAK	92.7	
131	LIVE OAK	100.5	
133	LIVE OAK	106.8	
135	LIVE OAK	77.0	
136	LIVE OAK	133.5	
139	LIVE OAK	130.4	
140	LIVE OAK	99.0	
141	LIVE OAK	113.1	
142	LIVE OAK	100.5	
144	LIVE OAK	100.5	
146	LIVE OAK	94.2	
155	LIVE OAK	92.7	
167	LIVE OAK	77.0	
2153	LIVE OAK	128.8	

UTILITY EASEMENT (U.E.) NOTE:

UTILITIES, INCLUDING, WITHOUT LIMITATION, SEWER, WATER, GAS, ELECTRICITY, TELEPHONE, AND CABLE TELEVISION, WITH ALL NECESSARY AND/OR DESIRABLE LINES, LATERALS AND/OR APPURTENANCES THERE TO (THE "UTILITIES").

TOGETHER WITH THE RIGHT OF INGRESS AND EGRESS OVER PASSABLE AREAS OF THE GRANTOR'S ADJACENT LAND, WHEN THE DELINEATED ENTRANCE POINT THAT ABUTS PUBLIC RIGHT-OF-WAY IS OBSTRUCTED AND/OR INACCESSIBLE, EITHER IN WHOLE OR IN PART, IN ORDER TO ACCESS OR LEAVE THE EASEMENT FOR THE PURPOSE OF CONSTRUCTING, RECONSTRUCTING, INSPECTING, PATROLLING, OPERATING, MAINTAINING, REPAIRING, AND REMOVING THE UTILITIES, THE RIGHT TO PLACE NEW OR ADDITIONAL UTILITIES IN THE EASEMENT AND TO CHANGE THE SIZE OF THE UTILITIES WITHIN THE EASEMENT; THE RIGHT TO RELOCATE ALONG THE SAME GENERAL DIRECTION OF THE UTILITIES; THE RIGHT TO REMOVE FROM THE EASEMENT ALL TREES AND PARTS THEREOF, OR OTHER OBSTRUCTIONS, WHICH REASONABLY ENDANGER OR MAY REASONABLY INTERFERE WITH THE EFFICIENCY OR OPERATION OF THE UTILITIES; AND THE RIGHT TO PLACE TEMPORARY STRUCTURES FOR USE IN CONSTRUCTING OR REPAIRING THE UTILITIES.

1. THE PROPERTY OWNER RETAINS THE RIGHT TO USE ALL OR ANY PART OF THE EASEMENT FOR ANY PURPOSE WHICH DOES NOT DAMAGE, DESTROY, INJURE, AND/OR UNREASONABLY INTERFERE WITH THE USE OF THE EASEMENT. HOWEVER, THE EASEMENT SHALL BE KEPT CLEAR OF ALL STRUCTURES OR OTHER IMPROVEMENTS.

2. THE CITY SHALL MAKE COMMERCIALLY REASONABLE EFFORTS TO ENSURE THAT DAMAGE TO THE PROPERTY IS MINIMIZED AND THE CITY WILL AT ALL TIMES, AFTER DOING ANY WORK IN CONNECTION WITH THE UTILITIES, RESTORE THE PROPERTY TO THE CONDITION IN WHICH THE PROPERTY WAS FOUND BEFORE SUCH WORK WAS UNDERTAKEN TO THE EXTENT THAT SUCH RESTORATION IS REASONABLE IN ACCORDANCE WITH THE CITY'S USUAL AND CUSTOMARY PRACTICES.

SIDEWALK NOTE:

AT SUCH TIME AS A LOT IS DEVELOPED, A FIVE-FOOT WIDE REINFORCED CONCRETE SIDEWALK SHALL BE INSTALLED ADJACENT TO ALL PROPERTY LINES OF EACH LOT WHERE THE LOT ABUTS PUBLIC OR PRIVATE STREET.

SETBACKS IN CITY LIMITS NOTE:

SETBACKS IN CITY LIMITS. LOT SETBACKS ARE DETERMINED BY THE CITY OF BOERNE ZONING ORDINANCE ENFORCED AT THE TIME OF DEVELOPMENT AND ARE BASED ON ZONING LOT SIZE. UNLESS OTHERWISE IDENTIFIED, THE FRONT SETBACK FOR A PIE SHAPED LOT OR A LOT ON A CURVILINEAR STREET OR CURVE-SAC IS MEASURED WHEREVER THE LOT WIDTH MEETS FRONTAGE REQUIREMENTS FOR THE LOT CATEGORY.

HERITAGE LEGACY NOTE:

THERE ARE 25 HERITAGE LEGACY TREES, AS DEFINED IN SUBSECTION 2.02.02, IDENTIFIED ON THIS PLAT.

TAX CERTIFICATE NOTE:

TAX CERTIFICATE AFFIDAVIT FILED THIS DATE IN DOCUMENT # _____, KENDALL COUNTY OFFICIAL RECORDS.

OBSTRUCTIONS OF DRAINAGE NOTE:

ADEQUATE STRUCTURES SHALL BE PROVIDED TO ALLOW THE UNHINDERED PASSAGE OF ALL STORM AND DRAINAGE FLOWS WHEREVER FENCES CROSS DRAINAGE EASEMENTS.

OPEN SPACE NOTE:

INSTALLATION OF PORTABLE WATER AND WASTEWATER SERVICES TO OPEN SPACE LOTS MAY BE PERFORMED BY THE DEVELOPER AT HIS/HER OPTION, AS PART OF THE OVERALL UTILITY INSTALLATION. THE DEVELOPER SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF SUCH SERVICES. IF PORTABLE WATER OR WASTEWATER SERVICES ARE NOT INITIALLY INSTALLED BUT ARE DESIRED SUBSEQUENT TO THE SUBDIVISION INFRASTRUCTURE DEVELOPMENT, THE SERVICE APPLICANT SHALL BE FINANCIALLY RESPONSIBLE FOR THE BURNING OF THE DESIGN AND INSTALLATION COSTS FOR THESE SERVICES. IN SOME INSTANCES, THIS WORK MAY ALSO INCLUDE THE EXTENSION OF UTILITY MAINS TO PROPERLY LOCATE THE DESIRED UTILITY SERVICES.

OPEN SPACE LOT DESIGNATION NOTE:

LOTS 1 & 6, BLOCK 1, ARE OPEN SPACE LOTS AND ARE DESIGNATED AS AN UNDERGROUND AND AT-GRADE INFRASTRUCTURE AND SERVICE FACILITIES EASEMENT FOR GAS, ELECTRIC, STREET LIGHT, TELEPHONE, CABLE TELEVISION, DRAINAGE, PEDESTRIAN, WATER, WASTEWATER, AND RECYCLED WATER MAINS.

Curve Table					
Curve #	Length	Radius	Delta	Tangent	Chord Bearing
C1	20.42'	13.00'	90°00'00"	13.00'	S 44°57'30" E
C2	131.59'	173.00'	43°34'56"	69.16'	N 68°15'02" E
C3	55.92'	227.00'	14°06'51"	28.10'	N 53°30'59" E
C4	23.97'	28.00'	49°02'56"	12.77'	N 36°02'57" E
C5	145.13'	60.00'	138°35'25"	158.75'	N 80°49'11" E
C6	5.28'	5.00'	60°30'27"	2.92'	S 60°08'20" E
C7	5.28'	5.00'	60°30'27"	2.92'	S 59°21'13" W
C8	88.95'	60.00'	84°56'25"	54.92'	S 71°34'12" W
C9	26.95'	28.00'	55°08'40"	14.62'	S 86°28'05" W
C10	37.55'	173.00'	12°26'11"	18.85'	S 52°40'39" W
C11	172.67'	227.00'	43°34'56"	90.75'	S 68°15'02" W
C12	20.31'	13.00'	89°31'47"	12.89'	S 45°16'36" W

STATE OF TEXAS
COUNTY OF KENDALL

THE OWNER OF LAND SHOWN ON THIS PLAT, IN PERSON OR THROUGH A DULY AUTHORIZED AGENT, DEDICATES TO THE USE OF THE PUBLIC FOREVER ALL STREETS, ALLEYS, PARKS, WATERCOURSES, DRAINS, EASEMENTS AND PUBLIC PLACES THEREON SHOWN FOR THE PURPOSE AND CONSIDERATION THEREIN EXPRESSED.

OWNER: MARK WEEKLEY
P.O. BOX 1259
BOERNE, TEXAS 78006
FOR: 20' UTILITY EASEMENT (OFF-LOT)

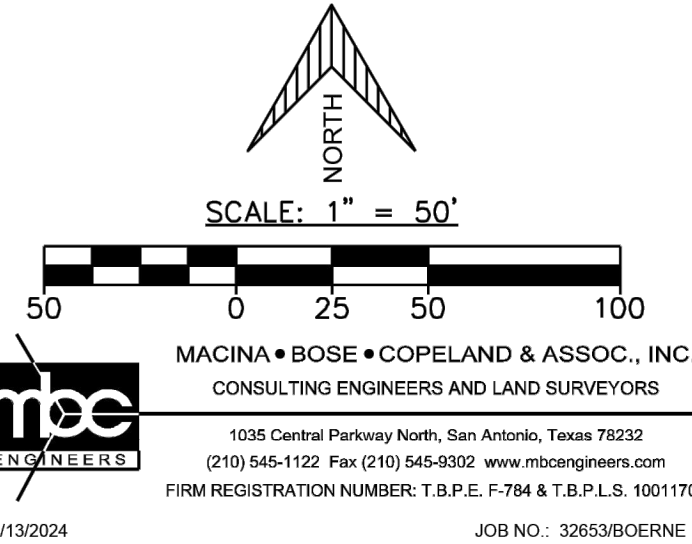
STATE OF TEXAS
COUNTY OF KENDALL

BEFORE ME, THE UNDERSIGNED AUTHORITY ON THIS DAY PERSONALLY APPEARED **MARK WEEKLEY**, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE/SHE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATIONS THEREIN EXPRESSED AND, IN THE CAPACITY, THEREIN STATED, GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS _____ DAY OF _____, 2024.

NOTARY PUBLIC
KENDALL COUNTY TEXAS

FINAL
SUBDIVISION PLAT
ESTABLISHING
502 S. SCHOOL ST.

BEING A TOTAL OF 4.886 ACRES OF LAND, SITUATED IN THE CITY OF BOERNE, OUT OF THE ANTONIO LOCKMAR SURVEY, NO. 178, ABSTRACT NO. 311, KENDALL COUNTY, TEXAS, AND BEING DESCRIBED IN A SPECIAL WARRANTY DEED, RECORDED IN DOCUMENT NO. 2022-370359 & WARRANTY DEED RECORDED IN DOCUMENT NO. 2022-368167, OF THE OFFICIAL PUBLIC RECORDS OF KENDALL COUNTY, TEXAS.



03/13/2024
STATE OF GEORGIA
COUNTY OF DEKALB

THE OWNER OF LAND SHOWN ON THIS PLAT, IN PERSON OR THROUGH A DULY AUTHORIZED AGENT, DEDICATES TO THE USE OF THE PUBLIC FOREVER ALL STREETS, ALLEYS, PARKS, WATERCOURSES, DRAINS, EASEMENTS AND PUBLIC PLACES THEREON SHOWN FOR THE PURPOSE AND CONSIDERATION THEREIN EXPRESSED.

OWNER: BEAZER FUNDAMENTAL, LLC
3002 SUMMIT BLVD STE 1400
BROOKHAVEN, GA 30319-5400

STATE OF GEORGIA
COUNTY OF DEKALB

BEFORE ME, THE UNDERSIGNED AUTHORITY ON THIS DAY PERSONALLY APPEARED _____, KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT, AND ACKNOWLEDGED TO ME THAT HE/SHE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATIONS THEREIN EXPRESSED AND, IN THE CAPACITY, THEREIN STATED, GIVEN UNDER MY HAND AND SEAL OF OFFICE THIS _____ DAY OF _____, 2024.

NOTARY PUBLIC
DEKALB COUNTY GEORGIA

THIS PLAT OF **502 S. SCHOOL ST.** HAS BEEN SUBMITTED TO AND CONSIDERED BY THE PLANNING AND ZONING COMMISSION OF THE CITY OF BOERNE, TEXAS, AND IS HEREBY APPROVED BY SUCH COMMISSION.

DATED THIS _____ DAY OF _____, 2024.

BY: _____
CHAIR

BY: _____
SECRETARY

STATE OF TEXAS
COUNTY OF KENDALL

I, _____, COUNTY CLERK OF SAID COUNTY, DO HEREBY CERTIFY THAT THE FOREGOING INSTRUMENT OF WRITING WITH THIS CERTIFICATE OF AUTHENTICATION WAS FILED FOR RECORD IN MY OFFICE THE _____ DAY OF _____, A.D. 2024 AT _____ M. IN THE PLAT RECORDS OF SAID COUNTY IN DOCUMENT NO. _____.

TAX CERTIFICATE AFFIDAVIT FILED THIS DATE IN DOCUMENT NO. _____, KENDALL COUNTY OFFICIAL RECORDS, IN TESTIMONY, WHEREOF, WITNESS MY HAND AND OFFICIAL SEAL OF OFFICE, THIS _____ DAY OF _____, A.D. 2024.

COUNTY CLERK
KENDALL COUNTY, TEXAS

BY: _____
DEPUTY

PLAT NOTES AND LEGEND APPLY TO EVERY PAGE OF THIS MULTIPLE PAGE PLAT.

SHEET 1 OF 2

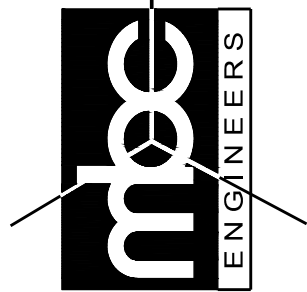
ISSUED FOR PERMIT
03-19-2024



PRIMARY CONTACT:
RICHARD HENDRIX, P.E.

MACINA • BOSE • COPELAND & ASSOC., INC.
CONSULTING ENGINEERS AND LAND SURVEYORS

1035 Central Parkway North, San Antonio, Texas 78232
(210) 545-1122 Fax (210) 545-9302 www.mbcengineers.com
FIRM REGISTRATION NUMBER: T.B.P.E. F-784 & T.B.P.L.S. 10011700



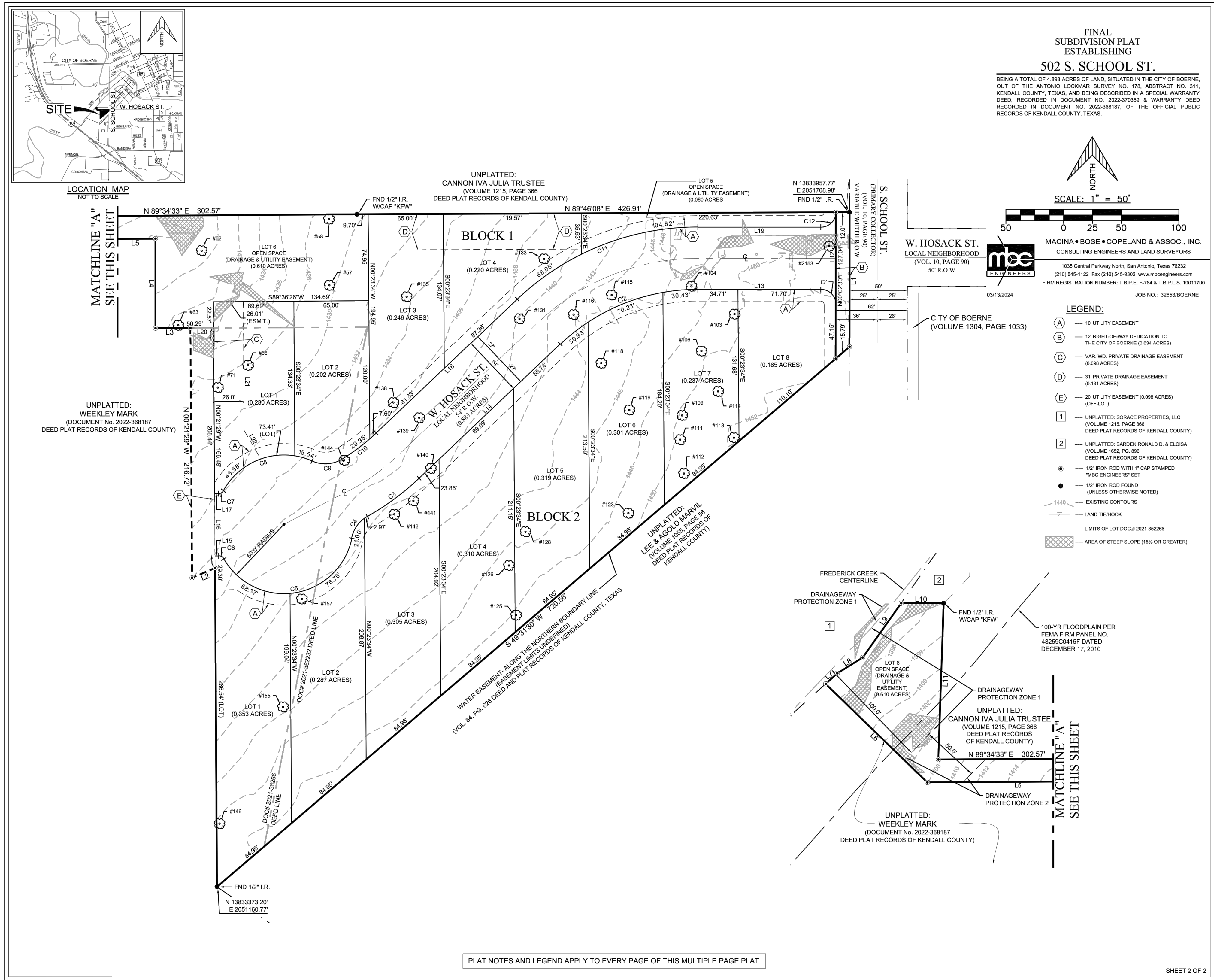
SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
SUBDIVISION PLAT

REVISIONS:		BY	
DATE	DESCRIPTION	No.	

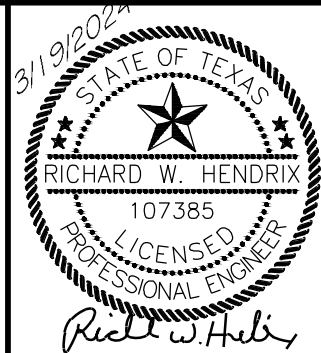
PLAT ID# -
DESIGN RH
DRAWN RH
CHECKED DLA
DATE 01-11-2021

JOB NO.
32653-BOERNE
C01.01

Date: Mar 19, 2024, 11:24am User ID: rhendrix Layout: SUBDIVISION PLAT - 2
File: P:\Boerne\32653-502 S School St\Design\Civil\plat sheet-32653.dwg Layout name: SUBDIVISION PLAT - 2

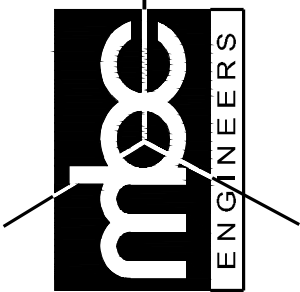


Date: Mar 13, 2024, 12:40pm User ID: rhendrix
File: P:\Boerne\32653-502 S School St\Design\Plat\32653-ah-plat.dwg



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SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
SUBDIVISION PLAT - 2

REVISIONS:	DATE	BY	DESCRIPTION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

PLAT ID# -
DESIGN - RH
DRAWN - RH
CHECKED - DLA
DATE 01-11-2021

JOB NO.

32653-BOERNE

C01.02

ISSUED FOR PERMIT
03-19-2024

Date: Mar 19, 2024, 11:02am User ID: lgorzalez Layout: CITY NOTES
File: P:\Boerne\32653-502 S School St\Design\Civil\Info-general notes sheet-32653.dwg Layout name: CITY NOTES

City of Boerne	
General Construction Notes	
General Notes	
1. Construction of all facilities to be dedicated to the public shall be performed per the requirements of the City of Boerne Standard Specifications for Public Works Construction, latest edition.	
2. All responsibility for the adequacy of these infrastructure drawings remains with the engineer of records. In approving these infrastructure drawings, the City of Boerne must rely upon the adequacy of the work of the engineer of record.	
3. Prior to beginning construction, the contractor shall contact the City of Boerne Development Services to schedule a pre-construction meeting.	
4. The contractor is responsible for obtaining all necessary permits and approvals prior to construction.	
5. The contractor shall notify City of Boerne Development Services at least 48 hours prior to beginning construction at (830) 248-1538.	
6. The contractor is required to schedule all necessary inspections at least 24 hours in advance.	
7. The contractor shall have available at the job site at all times the approved infrastructure drawings, including all approved revisions; the City of Boerne Standard Specifications for Public Works Construction; all necessary permits; Notice of Intent; erosion control plans; and SWPPP. It is encouraged to keep an extra copy of approved submittals on-site.	
8. The contractor shall be responsible for protecting all public utilities during construction of the project.	
9. The contractor shall determine the depth and location of existing underground utilities prior to excavating, trenching, or drilling and shall be required to take any precautionary measures to protect all lines shown and/or any other underground utilities not of record or not shown on the plans. The contractor shall be responsible for contacting all public agencies and franchise utilities 48 hours prior to construction (Texas811 1-800-344-8377). The contractor may be required to expose these facilities at their own cost.	
10. The contractor must contact City of Boerne Development Services immediately if any damage to existing utilities occurs. Any damage to utilities resulting from contractor's operations shall be restored at their expense.	
11. The contractor shall immediately repair or replace any physical damage to private property, including, but not limited to fences, walls, pavement, grass, trees, and lawn sprinkler and irrigation system at their own cost.	
12. Any discrepancies on the infrastructure drawings shall be immediately brought to the attention of the design engineer and City of Boerne Development Services before commencing work. No field changes or deviations from the infrastructure drawings are permitted without written approval from the City.	
13. Stormwater management facilities shall be provided prior to site construction or clearing and be maintained during the progress of construction.	
Rev. 11/9/2020	
8. Testing of materials required for the construction of paving improvements shall be performed by a geotechnical testing company and provide opportunity to be witnessed by a City inspector. All testing must be scheduled with the City of Boerne Development Services Department.	
Utilities	
GENERAL	
1. All construction, testing, cleaning, and disinfection shall be performed in accordance with the City of Boerne Standard Specifications for Public Works Construction, latest edition.	
2. Contractor shall not operate an existing valves. The City must be present during any work completed on existing City utilities. The contractor is not permitted to complete gas work on existing City gas mains at any time.	
3. The contractor must coordinate all utility tie-ins with the City. No tie-ins shall be made to the existing utility system until all test results have been provided to the City and are verified.	
4. Prior to receiving bulk water, the contractor must apply for a bulk water meter. The contractor is responsible for installing a City approved backflow device.	
5. All manholes in streets, valves, and blow-offs shall have concrete encasements.	
6. One density test per 8-inch lift is required every 500 feet for trenches up to 12 feet in depth and every 300 feet for trenches 12 feet and deeper. Density testing must be completed for each lift. Potholing and stair stepping is not permitted.	
7. All valve boxes, meter boxes, fire hydrants, manholes, etc. are required to be adjusted as required to match final grades.	
8. The contractor is responsible for staking utilities prior to the final inspection to verify location, finish grade, and depth.	
WATER	
9. Where the minimum nine feet separation between water and sanitary sewer lines cannot be maintained, the contractor must meet the requirements of 30 TAC 217.53(d) and 30 TAC 290.44(e).	
10. All water lines shall be installed between four and six feet or as shown on the approved infrastructure drawings.	
11. All water mains shall be hydrostatically tested by the contractor per City requirements.	
12. Final connection to the existing water main shall not be made until the water main has been pressure tested, chlorinated, and the City of Boerne released the main for tie-in and use.	
13. Tracer wire locate box shall be installed per City requirements at all water valves including fire hydrant valves and blowoffs. For grouping of valves at one general location, one locate box may be used.	
14. No valves, hydrants, blowoffs, etc., shall be constructed within curbs, sidewalks, or driveways.	
SEWER	
15. The contractor is responsible for ensuring no Sanitary Sewer Overflows (SSOs) occur as a result of work. Contractor shall contact the City immediately upon finding a SSO.	
Rev. 11/9/2020	

- The contractor is responsible for site safety. All work required shall be conducted in conformance with current safety codes and standards with jurisdiction over this project.
- The contractor shall provide the City access to City property, easements, utilities, and facilities at all times during construction.
- The contractor is responsible for required construction surveying and staking and shall notify the City of any discrepancies prior to proceeding with any work.
- The contractor shall verify benchmarks and datums prior to commencing construction or staking of improvements.
- The contractor shall be responsible for protecting all survey markers including iron rods, property corners, or survey monuments within the limits of the construction site and outside the right-of-way during construction. Any survey markers disturbed during construction shall be replaced by the Contractor at their own cost.
- All concrete shall be plant mixed meeting City specifications with a minimum of 4,000 psi at 28 days compressive strength unless otherwise specified.
- Contractor and/or contractor's independently retained employee or structural design/geotechnical/safety/equipment consultant, if any, shall review these plans and available geotechnical information and the anticipated installation site(s) within the project work area in order to implement contractor's trench excavation safety protection systems, programs, and/or procedures for the project described in these contract documents. The contractor's implementation of these systems, programs, and/or procedures shall provide for adequate trench excavation safety protection that comply with as a minimum, OSHA standards for trench excavations, specifically, contractor and/or contractor's independently retained employee or safety consultant shall implement a trench safety program in accordance with OSHA standards governing the presence and activities of individuals working in and around trench excavation.
- Contractor shall furnish a set of "as-built" drawings to the City of Boerne Development Services at the time of final inspection. Contractor shall give City at least two working days notice prior to final inspection.

Geotechnical Testing

- All compaction, concrete, and other required test results shall be sent to the design engineer and City directly from the testing agency.
- Upon completion of construction, a copy of all testing reports shall be compiled and forwarded to the City of Boerne Development Services Department prior to final acceptance.
- It is the responsibility of the developer, contractor, subcontractors, builders, geotechnical engineer, and design engineer to immediately notify the City and design engineer if the presence of groundwater within the site is evident. Upon notification, the design engineer shall respond with plan revisions for the mitigation of the groundwater issue. All construction activity impacted by the discovery of groundwater shall be suspended until the City approves the groundwater mitigation plan in writing.

Rev. 11/9/2020

- All PVC sewer pipe with over 14 feet of cover shall be extra strength, SDR 26 minimum pipe stiffness of 115 PSI from manhole to manhole.
- All sanitary sewer manholes require chimney seals and interior/exterior coatings per City requirements.
- After completion of construction, contractor shall clean the sewer mains and service lines and testing will be done by TV camera and observed by the City of Boerne inspector, wastewater engineering personnel, and contractor as the camera is run. Any abnormalities, such as broken pipe or misaligned joints, must be replaced by the contractor at their own expense.
- When sewer laterals are to be connected to existing sewer mains and no stub-out has been earlier provided, the connection must be made with an approved service saddle per City requirements.
- No testing will be performed prior to 30 days from complete installation of the sanitary sewer lines. The following sequence will be strictly adhered to: (1) mandrel test; (2) air test; (3) televising.

Trees

- A tree removal permit is required prior to removal of any tree within the City Limits.
- All trees not authorized to be removed must be protected to prevent damage around the root protection zone.

Revegetation

- All slopes and areas disturbed by construction shall be graded smooth. The contractor must loosen the surface of the soil to a depth of 2 inches and remove all stones and debris over 2 inches in any dimension. The area shall be revegetated and maintained until soil is stabilized in all areas. Any area disturbed for any reason prior to final acceptance of the project shall be corrected by the contractor.
- The contractor must construct and maintain a permanent stable protective cover (grass) for erosion and sediment control on all land surfaces exposed or disturbed by construction of the permitted project. The protective cover must be installed within 14 days after final grading of the affected land surface. A permanent stable cover must be established within 60 days of its installation.
- 85% of disturbed areas must have vegetation established prior to acceptance by the City of Boerne.
- Disturbed areas that are seeded or sodded shall be checked periodically to see that grass coverage is properly maintained. Disturbed areas shall be watered, fertilized, and re-seeded or re-sodded if necessary.

Record Drawings

- Upon completion of construction, the contractor shall provide the design engineer a copy of as-built plans identifying all deviations or variations from the original plans.
- The design engineer shall provide to the City of Boerne the "Plan of Record", signed and sealed by the design engineer.
- The "Plan of Record" must include print line data for all gas mains and service lines.

Rev. 11/9/2020

Traffic Control

- Contractor shall be responsible for furnishing and installing all temporary and permanent traffic control in accordance with the minimum requirements of the latest revision of the Texas Manual on Uniform Traffic Control Devices (TMUTCD) and TXDOT Barricade and Construction Standards.
- Contractor shall not impede traffic on existing streets, driveways, or fire lanes open to the public.
- Contractor to provide traffic control plan to City at least 3 business days in advance of completing work in a City right-of-way.
- All temporary signs, barricades, warning lights and other miscellaneous traffic control measures shall be removed and original traffic control measures replaced at the end of the contractor's construction operation.

Erosion Control Notes

- All erosion control devices shall be installed prior to site disturbance and shall remain in place until final grading and paving is complete and vegetation is established with 85% coverage achieved.
- Contractor is responsible for proper maintenance of the required erosion control devices throughout the entire construction process. Erosion controls shall be repaired or replaced as inspection deems necessary, or as directed by the owner's representative. Accumulated silt in any erosion control device shall be removed and shall be distributed on-site in a manner not contributing to additional siltation.
- The contractor is responsible to ensure that erosion control measures and stormwater control is sufficient to mitigate off-site impacts are in place at all stages of construction.
- The City inspector has the authority to have the contractor modify the erosion controls at the developer's expense. The developer shall be notified of these modifications prior to commencement of the modifications.
- Construction operations shall be managed so that as much of the site as possible is left covered with topsoil and vegetation.
- Contractor to remove grass and strip topsoil to depths encountered and stockpile topsoil to be distributed during final grading of the disturbed areas.
- Contractor shall construct a stabilized construction entrance at all primary points of access. Contractor is responsible for ensuring that all construction traffic utilizes the stabilized construction entrances at all times for ingress/egress to the site.
- Contractor is responsible for keeping streets and driveways adjacent to the project free from mud and debris at all times. Contractor shall clean and remove all loose material resulting from construction operations.
- The contractor shall take all available precautions to control dust.
- As inlets are completed, temporary sediment barriers shall be installed. Prior to final acceptance by the City of Boerne, all temporary inlet barriers shall be removed and replaced with controls to prevent sediment from entering the street ROW.

Rev. 11/9/2020

- The contractor is required to inspect the controls and fences at weekly intervals and after significant rainfall events to ensure that they are functioning properly. The person(s) responsible for maintenance of controls and fences shall immediately make any necessary repairs to damaged areas. Silt accumulation at controls must be removed when the depth reaches six (6) inches.
- Disturbed portions of the site must be stabilized. Stabilization practices must be initiated within 14 days in portions of the site where construction has been either temporarily or permanently ceased, unless excepted within the TPDES permit.
- Contractor shall inspect disturbed areas, material storage areas exposed to precipitation, structural control measures, and vehicle entry and exit areas at least once every 14 calendar days and within 24 hours of a storm event of 0.5 inches or greater.
- All temporary erosion and sedimentation controls shall be removed by the contractor at final acceptance of the project by the City of Boerne.

Grading Notes

- Contractor is required to obtain an approved Grading Permit from the City, if applicable.
- Contractor to ensure positive drainage at all times during construction.
- Contractor shall protect all existing utilities which are to remain in place and undisturbed during construction.
- Contractor shall not place any fill or waste material in the 100-year floodplain without first obtaining an approved Floodplain Development Permit.

Paving Notes

- All construction and testing shall be performed in accordance with the City of Boerne Standard Specifications for Public Works Construction, latest edition.
- Submittals for lime, base, prime coat, tack coat, and asphalt, as applicable, shall be approved prior to installation. Installation prior to submittal approval may require removal/replacement at the contractor's expense.
- No earthwork, lime application, or other preparation of the subgrade for paving of streets shall be initiated without authorization from the City of Boerne Development Services. The City will authorize the subgrade work in preparation for the paving after utility trench backfill testing is complete and verified to meet City requirements.
- The contractor is responsible for constructing all streets, crosswalks, sidewalks, driveways, and any other surface related to an "accessible route" per the Texas Accessibility Standards (TAS), latest edition. The contractor shall remove and replace any constructed or installed items not meeting the current TAS requirements at their own cost.
- Embankment/fill material under proposed streets must be free of large stones (4" when backfill is 12" or great in depth or 2.5" when fill is less than 12" in depth), have a plasticity index (PI) less than 20 per ASTM D4318, and be compacted to 95%.
- Utilities must be maintained to proper line and grade during construction of the paving for this project.
- Flexible base under roadways requires 100% compaction and must extend at least 18 inches behind the back of curb.

Rev. 11/9/2020

ISSUED FOR PERMIT
03-19-2024

03-19-24

STATE OF TEXAS

RICHARD W. HENDRIX

107385

LICENSED PROFESSIONAL ENGINEER

Richard Hendrix

PRIMARY CONTACT:
RICHARD HENDRIX, P.E.

MACINA • BOSE • COPELAND & ASSOC., INC.

CONSULTING ENGINEERS AND LAND SURVEYORS

mbe

ENGINEERS

1035 Central Parkway North, San Antonio, Texas 78232

(210) 545-1122 Fax (210) 545-9302 www.mbcengineers.com

FIRM REGISTRATION NUMBER: T.B.P.E. F-784 & T.B.P.L.S. 10011700

SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
CITY NOTES

REVISIONS:	DATE	BY	DESCRIPTION

PLAT ID#

DESIGN

DRAWN

CHECKED

DATE

-

RH

RH

DLA

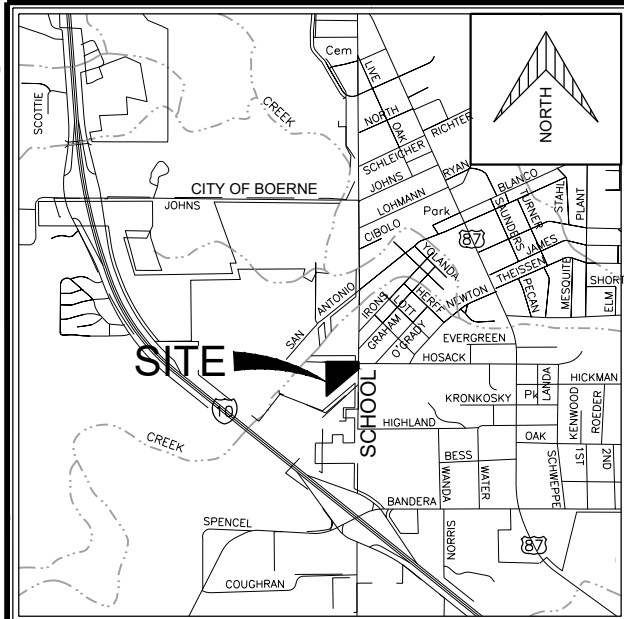
01-11-2021

JOB NO.

32653-BOERNE

C02.01

Date: Mar 19, 2024, 11:02am User ID: lgorzalez Layout: EX. CONDITIONS & DEMOLITION PLAN
File: P:\Boerne\32653-502 S School St\Design\Design Civil\ex-conditions plan-32653.dwg Layout name: EX. CONDITIONS & DEMOLITION PLAN



NOTE:
REFERENCE GENERAL NOTES ON SHEET C02.00
PRIOR TO BID AND CONSTRUCTION

MATCHLINE A THIS SHEET

UNPLATTED
ANITA LEWIS ASHER
(VOLUME 1350, PAGE 30
DEED PLAT RECORDS OF
KENDALL COUNTY)

N 40° 28' 51" W 1632.00'

EXISTING BARBWARE
FENCE TO BE REMOVED

EXISTING BARBWARE
FENCE TO BE REMOVED

EXISTING CONCRETE
SLAB TO BE REMOVED

UNPLATTED
IVA JULIA CANNON
(VOLUME 1215, PAGE 366
DEED PLAT RECORDS OF
KENDALL COUNTY)

TREE REMOVAL NOTE
TREE REMOVAL PERMIT REQUIRED PRIOR TO THE REMOVAL OF ANY
TREES.

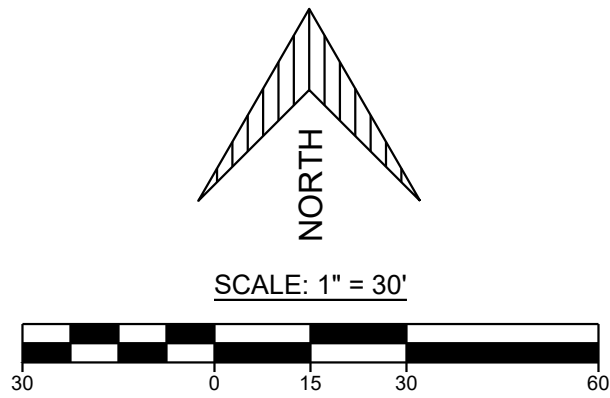
EXISTING WOOD FENCE
TO BE REMOVED

UNPLATTED
LEE & AGOOD MARVIN
(VOLUME 1058, PAGE 56
DEED PLAT RECORDS OF
KENDALL COUNTY)

UNPLATTED
ANITA LEWIS ASHER
(VOLUME 1350, PAGE 30
DEED PLAT RECORDS OF
KENDALL COUNTY)

UNPLATTED
IVA JULIA CANNON
(VOLUME 1215, PAGE 366
DEED PLAT RECORDS OF
KENDALL COUNTY)

MATCHLINE A THIS SHEET



LEGEND	
	PROPOSED CONCRETE HEADER CURB
	PROPOSED CONCRETE CURB
	EXISTING CONCRETE CURB
	EXISTING FIRE HYDRANT
	PROPOSED FIRE HYDRANT
	PROPOSED FIRE DEPARTMENT CONNECTION
	PROPOSED REMOTE FIRE DEPARTMENT CONNECTION
	MISC. TRAFFIC SIGN
	GUARD POST
	EXISTING WATER VALVE
	PROPOSED WATER VALVE
	LIGHT POLE
	POWER POLE
	EXISTING MANHOLE
	PROPOSED MANHOLE
	GRATE
	TRAFFIC LIGHT
	GUY WIRE ANCHOR
	ACCESSIBLE PARKING
	DETAIL REFERENCE
	SHEET NUMBER
	EXISTING CONCRETE AREAS
	WHEELSTOP
	EXISTING FENCE
	PROPOSED FENCE
	EXISTING OVERHEAD ELECTRIC
	RETAINING WALL (REF. STRUCTURAL DWGS)
	SAWTOOTH CURB
	SINGLE LAMP LIGHT POLE
	DOUBLE LAMP LIGHT POLE

NOTE
THE CONTRACTOR SHALL INCLUDE IN THE BID THE TRAFFIC AND PEDESTRIAN CONTROL PLANS, DESIGN, AND THE IMPLEMENTATION OF CONTROL DEVICES AS REQUIRED FOR CONSTRUCTION. CONTRACTOR SHALL SEQUENCE CONSTRUCTION SO THAT NEIGHBORING PROPERTIES HAVE SUITABLE MEANS OF VEHICULAR AND PEDESTRIAN ACCESS.

- NOTE
- CONTRACTOR TO REMOVE ALL EXISTING IMPROVEMENTS AS REQUIRED IN ORDER TO COMPLETE THE CONSTRUCTION OF THE PROJECT AS SHOWN IN THESE PLANS.
 - CONTRACTOR TO COORDINATE WITH THE ELECTRIC UTILITY PROVIDER THE REMOVAL OF EXISTING ELECTRIC SERVICE DROP, EXISTING POWER POLES, GUYS/ANCHORS AND ELECTRIC METERS FROM THE SITE.
 - ANY DEBRIS, GARBAGE, OR FOREIGN MATTER MUST BE REMOVED FROM THE SITE.
 - COORDINATE THE REMOVAL OF ANY WATER OR SEWER SYSTEM ITEMS WITH THE CITY OF BOERNE UTILITY DEPARTMENT.
 - CONTRACTOR SHALL COORDINATE THE REMOVAL OF ANY ELECTRIC OR GAS SERVICES WITH THE CITY OF BOERNE.
 - CONTRACTOR SHALL REMOVE ALL UTILITY TRENCH MATERIAL (PIPE, RISERS, GRAVEL, SAND, BEDDING, ETC.) ON-SITE TO PREVENT FUTURE WATER MIGRATION UNDER THE STRUCTURE AND PAVEMENT. BACKFILL AND COMPACT THE EXCAVATION IN ACCORDANCE WITH GEOTECHNICAL RECOMMENDATIONS.
 - CONTRACTOR TO INCLUDE, IN THE BID, THE REMOVAL OF ANY ITEMS LOCATED ON THE SITE OR NEAR THE SITE WHICH CONFLICT WITH THE WORK. THIS NOTE ALSO APPLIES TO ITEMS WHICH ARE NOT SHOWN ON THIS DRAWING INCLUDING SUBSURFACE LINES AND PIPING.
 - REMOVE EXISTING CURBS WITHIN THE RIGHT OF WAYS AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW CONCRETE APRONS.
 - ALL EXISTING CONCRETE CURB OR PAVEMENT TO BE REMOVED ADJACENT TO THE EXISTING SCHOOL STREET ROADWAY ASPHALT PAVEMENT WILL BE SAW CUT ALONG THE EXISTING EDGE OF CONCRETE OR CURB TO THE EXISTING DEPTH OF CONCRETE. NEW CONCRETE OR CURB THAT LEAVES A VOID SPACE BETWEEN THE EXISTING ASPHALT PAVEMENT AND THE NEW CONCRETE WILL PLACE A THICK COAT AND COMPACTED ASPHALT PAVING MATERIAL TO MATCH THE EXISTING PAVEMENT SURFACE TO FILL THE VOID.

Line Table		
Line #	Bearing	Length
L1	S 00°02'30" W	116.84'

ISSUED FOR PERMIT
03-19-2024

03-19-24
STATE OF TEXAS
RICHARD W. HENDRIX
107385
LICENSED
PROFESSIONAL ENGINEER
Richard W. Hendrix

PRIMARY CONTACT:
RICHARD HENDRIX, P.E.

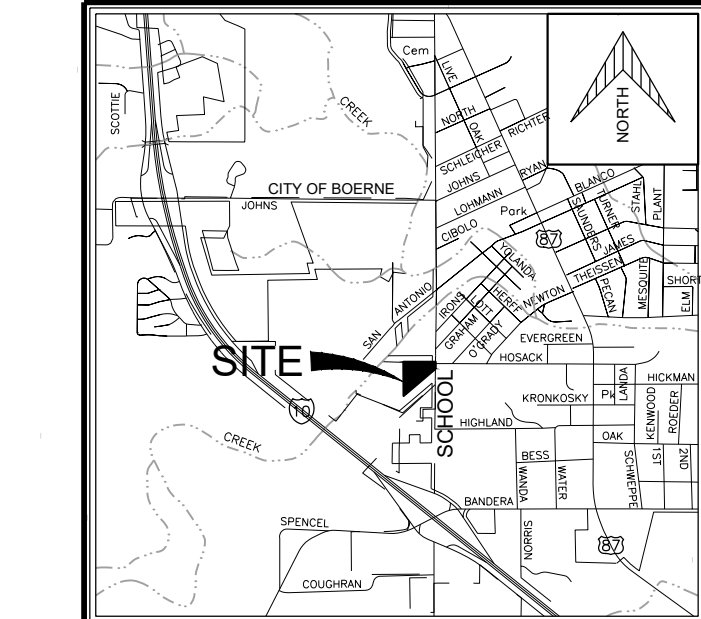
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SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
EX. CONDITIONS & DEMOLITION PLAN

REVISIONS:
DATE
BY
DESCRIPTION
No.

PLAT ID#
DESIGN
DRAWN
CHECKED
DATE
JOB NO.

01-11-2021
RH
RH
DLA
01-11-2021
32653-BOERNE
C03.00



NOTE:
REFERENCE GENERAL NOTES ON SHEET C02.00
PRIOR TO BID AND CONSTRUCTION

NOTE:
RE-VEGETATE ALL DISTURBED AREAS. NATIVE, NONINVASIVE TURF GRASSES (NOT BUNCH GRASSES) SHOULD BE PLANTED AND MAINTAINED AT A MINIMUM HEIGHT OF 4 INCHES. CONTRACTOR IS RESPONSIBLE FOR TEMPORARY IRRIGATION AND OR WATERING UNTIL 80% GROWTH HAS BEEN ESTABLISHED.

STABILIZATION NOTE:
PER TDES REQUIREMENTS, DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITIES HAVE CEASED (TEMPORARILY OR PERMANENTLY) SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITY RESUMES WITHIN 21 DAYS. SEEDING DOES NOT CONSTITUTE AS STABILIZATION.

TOP SOIL NOTE:
TOPSOIL IS TYPICALLY REMOVED WHEN A SITE IS CLEARED, SINCE TOPSOIL IS ESSENTIAL TO ESTABLISH NEW VEGETATION, IT SHOULD BE STOCKPILED AND THEN REAPPLIED TO THE SITE FOR REVEGETATION. IF APPROPRIATE, ALTHOUGH TOPSOIL SALVAGED FROM THE EXISTING SITE CAN OFTEN BE USED, IT MUST MEET CERTAIN STANDARDS AND TOPSOIL MAY NEED TO BE IMPORTED ONTO THE SITE IF THE EXISTING TOPSOIL IS NOT ADEQUATE FOR ESTABLISHING NEW VEGETATION.

GENERAL POND NOTES:
1. THE DETENTION POND FACILITY SHALL ALSO BE USED AS A TEMPORARY SEDIMENT TRAP FOR THE PURPOSES OF THE TEXAS POLLUTION DISCHARGE ELIMINATION SYSTEM CONSTRUCTION PERMIT FOR THIS SITE. THE CONTRACTOR SHALL CLEAN ALL SEDIMENT OUT OF THE DETENTION FACILITY UPON FINAL STABILIZATION OF THE SITE.
2. CONTRACTOR TO HYDROMULCH ENTIRE DISTURBED LIMITS OF EARTHEN PORTION OF POND. 85% OF POND SURFACE MUST HAVE ESTABLISHED VEGETATION PRIOR TO ACCEPTANCE OF THE POND BY THE CITY OF BOERNE.
3. THE CONTRACTOR SHALL NOTIFY A UTILITY LOCATOR AT LEAST 48 HOURS PRIOR TO PERFORMING ANY EXCAVATION ACTIVITY ADJACENT TO THE CONSTRUCTION OF ANY ON-SITE DRAINAGE FACILITIES TO PROTECT ANY UNIDENTIFIED EXISTING UNDERGROUND UTILITY FACILITY FROM DAMAGE OR HARM. THE CONTRACTOR SHALL HAVE THE SOLE RESPONSIBILITY FOR ANY DAMAGES TO UTILITIES AS A RESULT OF NOT LOCATING UNDERGROUND UTILITY RESOURCES.
4. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE UDC OF THE CITY OF BOERNE, TEXAS.
5. ANY AREAS EXPOSED TO HIGH VELOCITY FLOWS SHALL EITHER HAVE A 6" THICK ROCK GABION MATTRESS INSTALLED OR THE INSTALLATION OF APPROPRIATE GEOTECHNICAL LINER AS DIRECTED BY THE CONSTRUCTION ENGINEER IN CHARGE.
6. THE OWNER SHALL SPECIFY THE USE OF EITHER A CHAINLINK FENCE OR A WOODEN PRIVACY FENCE. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER PRIOR TO INSTALLATION AND CONSTRUCTION.

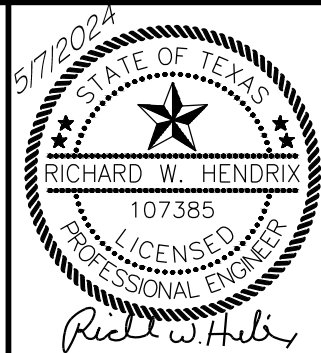
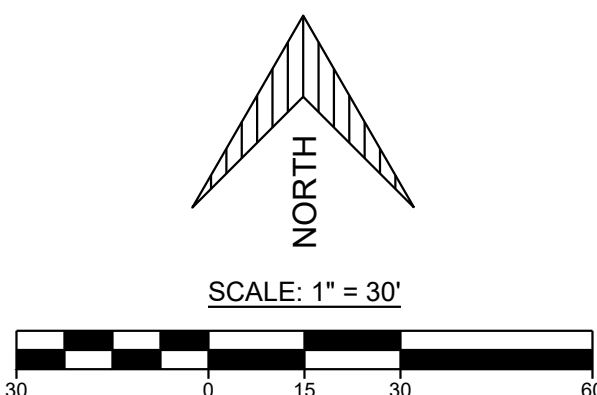
SEQUENCE OF CONSTRUCTION

- TEMPORARY EROSION AND SEDIMENTATION CONTROLS ARE TO BE INSTALLED AS INDICATED ON THE APPROVED SITE PLAN OR SUBDIVISION CONSTRUCTION PLAN AND IN ACCORDANCE WITH THE EROSION CONTROL PLAN (ECP) AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) THAT IS REQUIRED TO BE POSTED ON THE SITE. INSTALL TREE PROTECTION, AND INITIATE TREE MITIGATION MEASURES (IF APPLICABLE).
- TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE EROSION CONTROL PLAN (ECP) AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE.
- BEGIN SITE CLEARING/CONSTRUCTION (OR DEMOLITION) ACTIVITIES.
- PERMANENT WATER QUALITY PONDS OR CONTROLS WILL BE CLEANED OUT AND FILTER MEDIA WILL BE INSTALLED PRIOR TO CONCURRENTLY WITH REVEGETATION OF SITE.
- COMPLETE CONSTRUCTION AND START REVEGETATION OF THE SITE AND INSTALLATION OF LANDSCAPING.
- UPON COMPLETION OF THE SITE CONSTRUCTION AND REVEGETATION OF A PROJECT SITE, THE DESIGN ENGINEER SHALL SUBMIT AN ENGINEER'S LETTER OF CONCURRENCE BEARING THE ENGINEER'S SEAL, SIGNATURE, AND DATE TO THE DEVELOPMENT SERVICES DEPARTMENT INDICATING THAT CONSTRUCTION, INCLUDING REVEGETATION, IS COMPLETE AND IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR.
- UPON COMPLETION OF LANDSCAPE INSTALLATION OF A PROJECT SITE, THE LANDSCAPE ARCHITECT SHALL SUBMIT A LETTER OF CONCURRENCE TO THE DEVELOPMENT SERVICES DEPARTMENT INDICATING THAT THE REQUIRED LANDSCAPING IS COMPLETE AND IN SUBSTANTIAL CONFORMITY WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR.
- 85% VEGETATION MUST BE ESTABLISHED OF THE DISTURBED AREA ON THE SITE PRIOR TO REMOVAL OF TEMPORARY EROSION CONTROLS.
- AFTER A FINAL INSPECTION HAS BEEN CONDUCTED BY THE CITY INSPECTOR AND WITH APPROVAL FROM THE CITY INSPECTOR, REMOVE THE TEMPORARY EROSION AND SEDIMENTATION CONTROLS AND COMPLETE ANY NECESSARY FINAL REVEGETATION RESULTING FROM REMOVAL OF THE CONTROLS. CONDUCT ANY MAINTENANCE AND REHABILITATION OF THE WATER QUALITY PONDS OR CONTROLS.
- THE TEMPORARY SEDIMENTATION BASINS SHALL BE CONSTRUCTED BEFORE ANY WATERSHED WITH LAND DISTURBING ACTIVITIES GREATER THAN ONE (1) ACRE OCCUR. THE PERMANENT BASIN SHALL BE CONSTRUCTED TO ACT AS THE REQUIRED TEMPORARY SEDIMENTATION BASIN. GUIDELINES FOR CONSTRUCTION OF THE PERMANENT BASIN SHOULD BE FOLLOWED, BUT PLACEMENT OF PERMANENT OUTFALL PIPING SHOULD NOT BE CARRIED OUT UNTIL THE SITE CONSTRUCTION PHASE IS COMPLETE.
- FINAL STABILIZATION CONSISTS OF SOIL COVER SUCH AS VEGETATION, GEOTEXTILES, MULCH, ROCK, OR PLACEMENT OF PAVEMENT FOR STABILIZING VEGETATED DRAINAGE WAYS AND STORMWATER FACILITIES. SOIL OR SEEDING SOIL RETENTION BLANKETS SHALL BE USED. HYDRO MULCH WILL NOT BE ALLOWED IN VEGETATED SWALES, CHANNELS OR OTHER DRAINAGE WAYS. THE PLAN FOR FINAL STABILIZATION SHALL BE COORDINATED WITH PERMANENT CONTROLS IN THE DRAINAGE PLAN AND WITH THE LANDSCAPING PLAN, IF APPLICABLE. TOPSOIL IS TYPICALLY REMOVED WHEN A SITE IS CLEARED. SINCE TOPSOIL IS ESSENTIAL TO ESTABLISH NEW VEGETATION, IT SHOULD BE STOCKPILED AND THEN REAPPLIED TO THE SITE FOR REVEGETATION. IF APPROPRIATE, ALTHOUGH TOPSOIL SALVAGED FROM THE EXISTING SITE CAN OFTEN BE USED, IT MUST MEET CERTAIN STANDARDS AND TOPSOIL MAY NEED TO BE IMPORTED ONTO THE SITE IF THE EXISTING TOPSOIL IS NOT ADEQUATE FOR ESTABLISHING NEW VEGETATION.
- ANY PERMITTED WORK LOCATED OFF-SITE WILL REQUIRE A LETTER OF APPROVAL FROM EACH AFFECTED LANDOWNER PRIOR TO FINAL ACCEPTANCE OF CONSTRUCTION BY THE CITY OF BOERNE.

TREE REMOVAL NOTE
TREE REMOVAL PERMIT REQUIRED PRIOR TO THE REMOVAL OF ANY TREES.

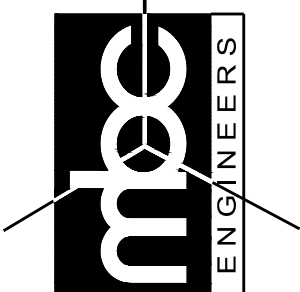
UNPLATTED
IVA JULIA CANNON
(VOLUME 1215, PAGE 366
DEED PLAT RECORDS OF
KENDALL COUNTY)

Line Table		
Line #	Bearing	Length
L1	S 00°02'30" W	116.84'



PRIMARY CONTACT:
RICHARD HENDRIX, P.E.

MACINA • BOSE • COPELAND & ASSOC., INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
1035 Central Parkway North, San Antonio, Texas 78232
(210) 545-1122 Fax (210) 545-9302 www.mbcengineers.com
FIRM REGISTRATION NUMBER: T.B.P.E. F-784 & T.B.P.L.S. 10011700



SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
EROSION CONTROL PLAN

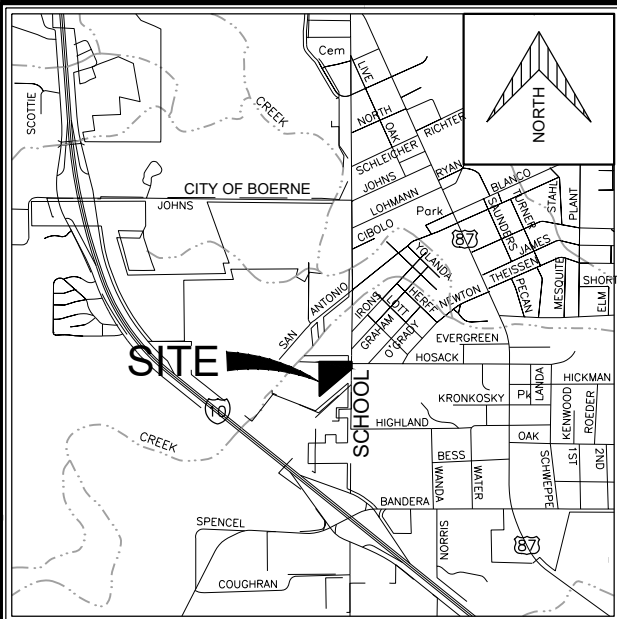
LEGEND	
SF	SILT FENCE
[Pattern]	STABILIZED CONSTRUCTION ENTRANCE
[Pattern]	CONCRETE TRUCK WASHOUT PIT
[Pattern]	GRATE & CURB INLET PROTECTION
[Pattern]	FIBER ROLL BERM
[Pattern]	ROCK BERM
- - - 780 - - -	EXISTING CONTOUR
[100]	PROPOSED CONTOUR (REPRESENT FINISHED TOP OF PAVEMENT OR TOPSOIL)
[Pattern]	DEFINED SWALE
[Pattern]	PROPOSED RETAINING WALL
[Pattern]	PROPOSED SAWTOOTH CURB
[Pattern]	PROPOSED RIDGE
FF=000.00	PROPOSED FIN. FLOOR ELEVATION
[Pattern]	PROPOSED FOUNDATION BREAKS
[Pattern]	OVERLAND FLOW DIRECTION
[Pattern]	GRATE
[Pattern]	DRAINAGE FLOW (PROPOSED)
[Pattern]	LIMITS OF CONSTRUCTION AREA OF SOIL DISTURBANCE (TO BE REVEGETATED)
[Pattern]	WATERSHED BOUNDARY
[Pattern]	IMPERVIOUS COVER TO BE DEMOLISHED
[Pattern]	EROSION CONTROL MAT

NOTE: SEE SHEET C4.01 FOR
EROSION CONTROL DETAILS.

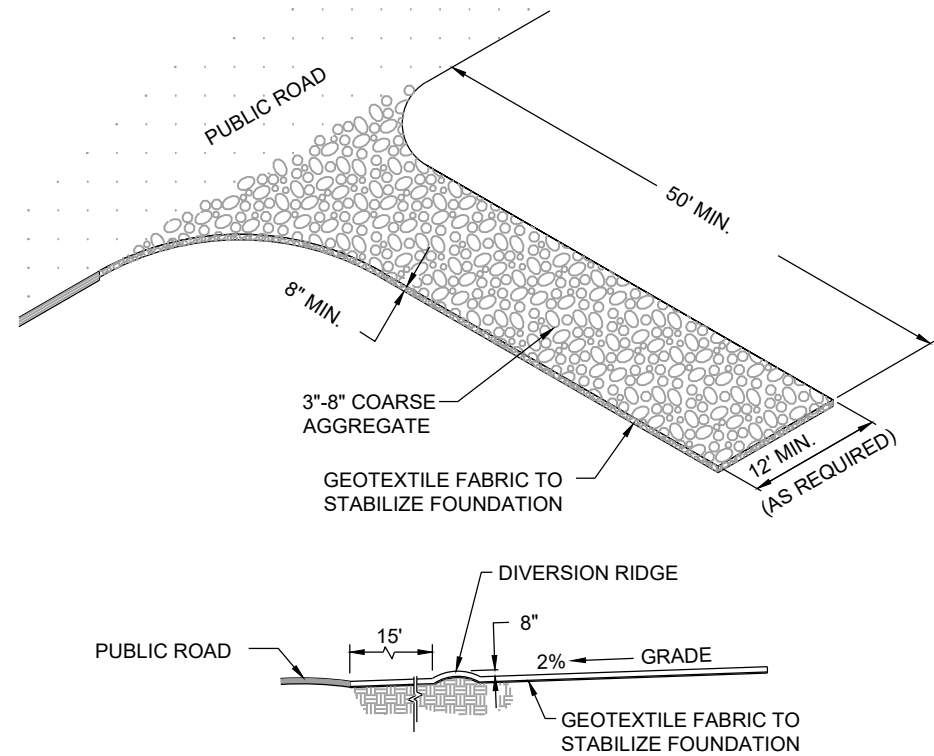
THIS SHEET TO BE
USED FOR EROSION
CONTROL PURPOSES
ONLY.

ISSUED FOR PERMIT
05-07-2024

32653-BOERNE
C04.00



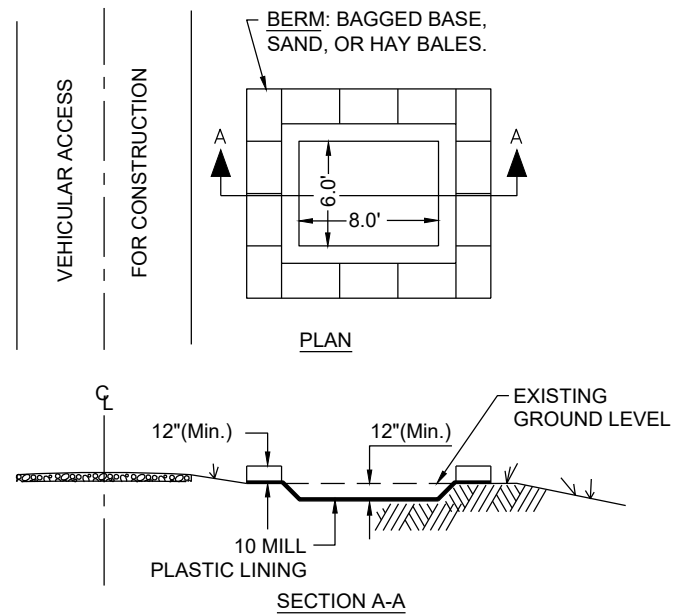
LOCATION MAP
NOT TO SCALE



STABILIZED CONSTRUCTION ENTRANCE

NOT TO SCALE

- STABILIZED CONSTRUCTION ENTRANCE (S. C. E.)
INSTALLATION OF CONSTRUCTION ENTRANCE:
1. CLEAR THE AREA OF DEBRIS, ROCKS, OR PLANTS THAT WILL INTERFERE WITH INSTALLATION.
 2. GRADE THE AREA FOR THE ENTRANCE TO FLOW BACK ON TO THE CONSTRUCTION SITE. RUNOFF FROM THE S.C.E. ONTO A PUBLIC STREET WILL NOT BE ACCEPTED.
 3. PLACE ROCK AS REQUIRED. (3"-5" OPEN GRADED CLEAN CRUSHED STONE)
 4. SIDE CONTAINMENT, AT THE CONTRACTOR'S DISCRETION, IS SUGGESTED. THE SPECIFIED 8" THICKNESS OF CRUSHED STONE MUST BE MAINTAINED.

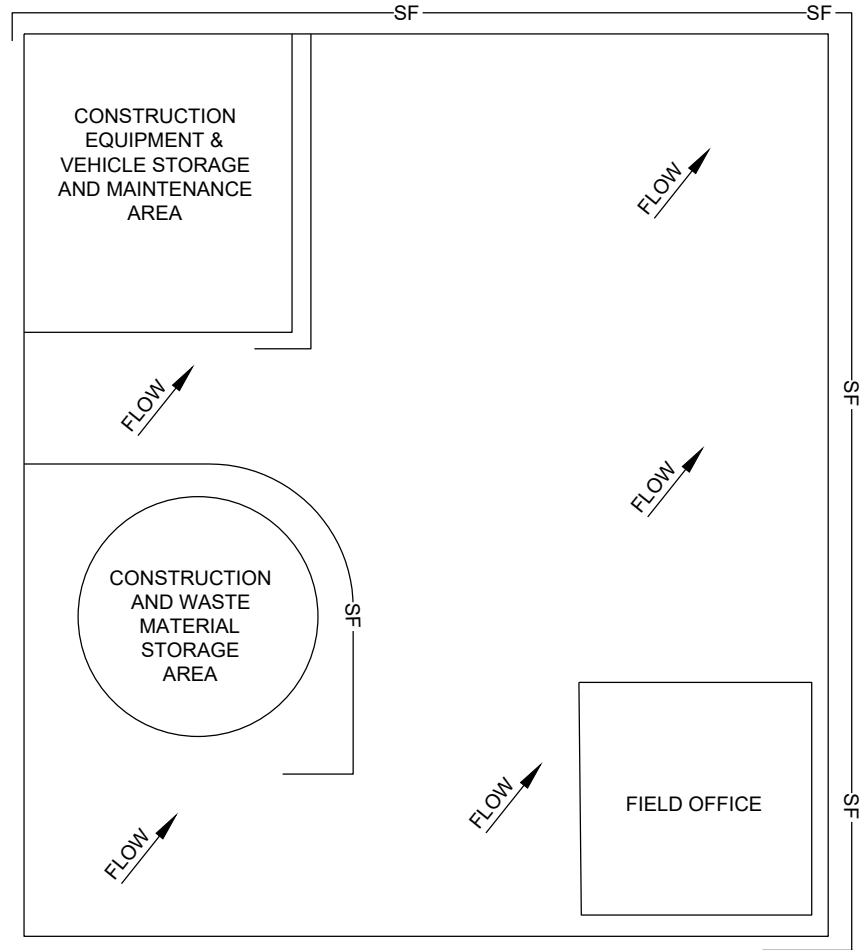


CONCRETE TRUCK WASHOUT PIT

NOT TO SCALE

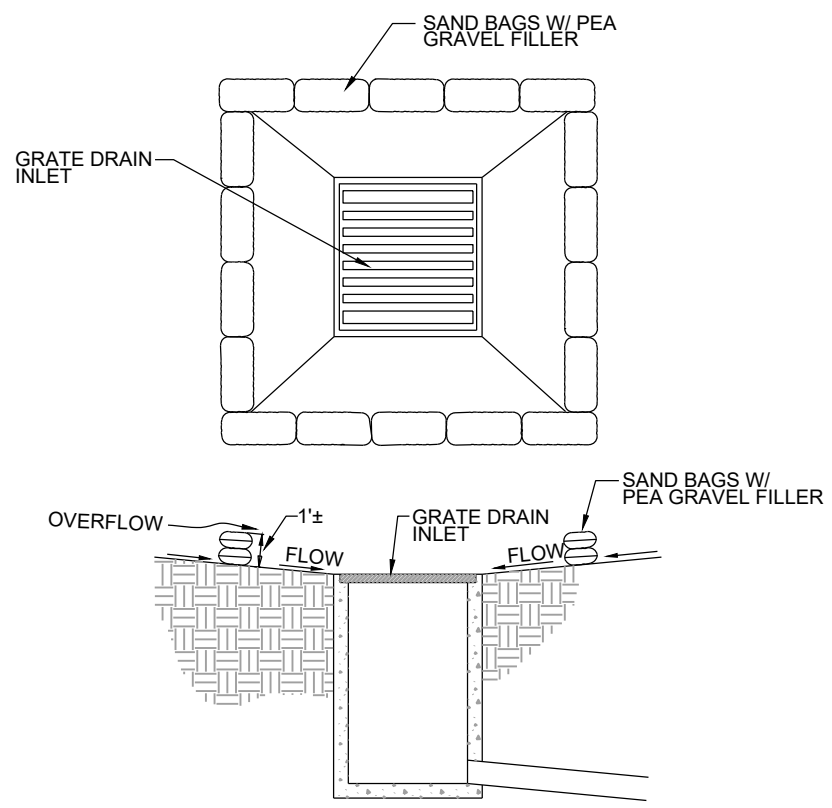
- WASHOUT PIT GENERAL NOTES:
- DETAILS ILLUSTRATE MINIMUM DIMENSIONS. PIT CAN BE INCREASED IN SIZE DEPENDING ON EXPECTED FREQUENCY OF USE.
- IF HAY BALES ARE USED FOR BERM, THEY SHALL BE ANCHORED IN PLACE WITH 2 REBARS PER BALE, DRIVEN INTO GROUND ENOUGH TO PROVIDE REASONABLE STABILITY.
- WASHOUT PIT SHALL BE LOCATED IN AN AREA EASILY ACCESSIBLE TO CONSTRUCTION TRAFFIC.
- WASHOUT PIT SHALL NOT BE LOCATED IN AREA SUBJECT TO INUNDATION FROM STORM WATER RUNOFF.
- PIT SHALL NOT BE LOCATED OVER OR IN THE IMMEDIATE VICINITY OF A FEATURE OF GROUNDWATER RECHARGE.

NOTE:
ALL AREAS WITHIN PROPERTY ARE EXPECTED TO BE DISTURBED AND STABILIZED. EXAMPLES OF ACCEPTABLE TEMPORARY AND PERMANENT SOIL STABILIZATION MEASURES ARE ESTABLISHMENT OF TEMPORARY VEGETATION, ESTABLISHMENT OF PERMANENT VEGETATION, MULCHING, GEOTEXTILES, SOD STABILIZATION, VEGETATIVE BUFFER STRIPS, PROTECTION OF TREES, OR PRESERVATION OF MATURE VEGETATION. THE SOIL STABILIZATION METHOD USED IN THIS PROJECT SHALL BE AN APPROVED METHOD WITHIN THE TCEQ TECHNICAL GUIDANCE MANUAL AND MUST BE APPROVED BY MBC ENGINEERS BEFORE IT IS IMPLEMENTED IN THE PROJECT. THE METHOD OF SOIL STABILIZATION APPROVED FOR THE PROJECT AT BID STAGE WILL THEN BE SENT TO TCEQ FOR THEIR RECORDS.



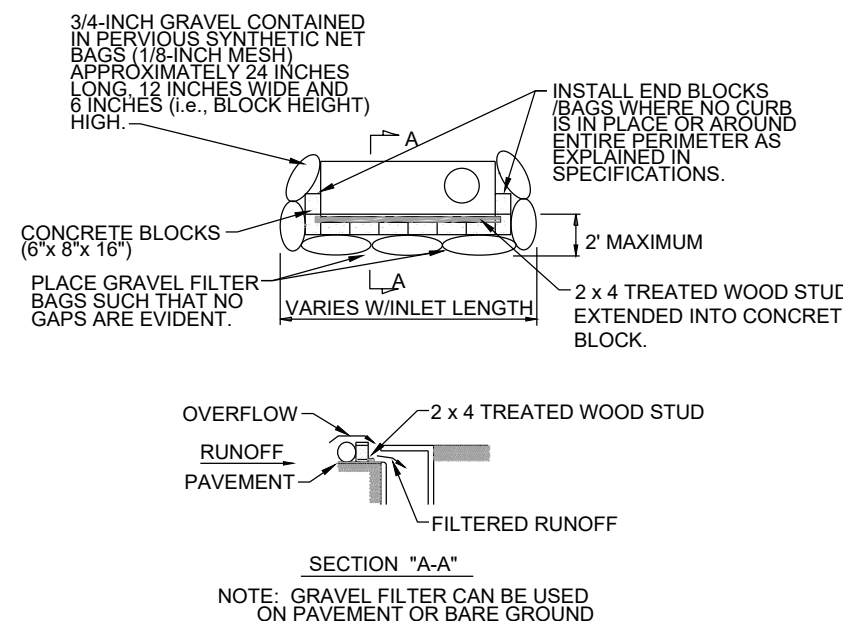
TYP. CONSTRUCTION STAGING AREA DTL.

NOT TO SCALE



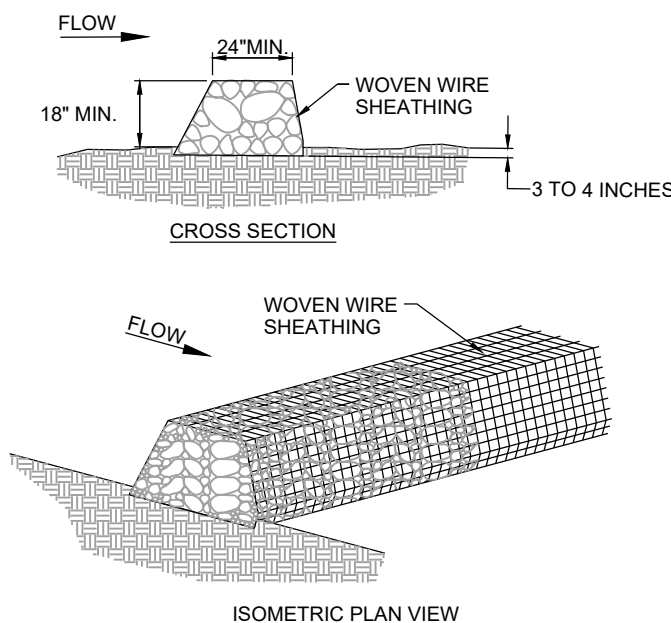
GRATE INLET PROTECTION DTL.

NOT TO SCALE



CURB INLET GRAVEL FILTER

NOT TO SCALE



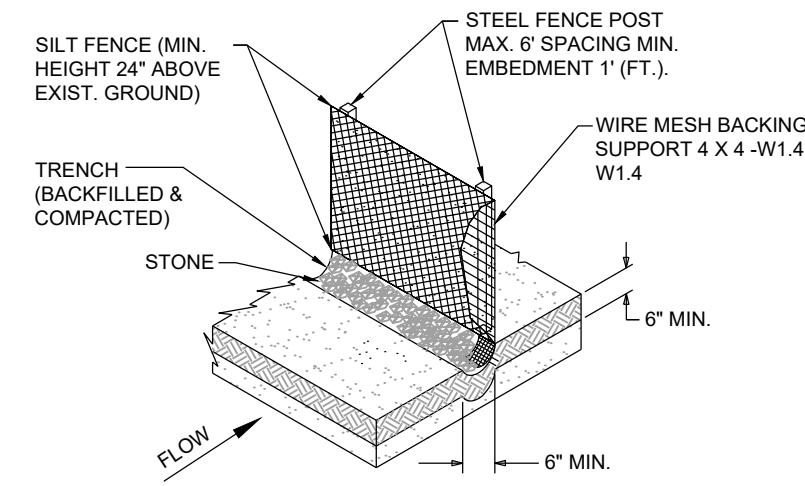
ROCK BERM

NOT TO SCALE

- ROCK BERM NOTES
1. THE BERM STRUCTURE SHOULD BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM OPENING OF 1 INCH AND A MINIMUM WIRE DIAMETER OF 20 GAUGE GALVANIZED AND SHOULD BE SECURED WITH SHOAT RINGS.
 2. CLEAN, OPEN GRADED 3 TO 5 INCH DIAMETER ROCK SHOULD BE USED EXCEPT IN AREAS WHERE HIGH VELOCITIES OR LARGE VOLUMES OF FLOW ARE EXPECTED, WHERE 5 TO 8 INCH DIAMETER ROCKS MAY BE USED.
 3. BERM SHOULD HAVE A TOP WIDTH OF 2 FEET MINIMUM WITH SIDE SLOPES BEING 2:1 (H:V) OR FLATTER. HEIGHT OF ROCK BERM SHALL NOT BE LESS THAN 18".
 4. WRAP THE WIRE SHEATHING AROUND THE ROCK AND SECURE WITH TIE WIRE SO THAT THE ENDS OF THE SHEATHING OVERLAP AT LEAST 2 INCHES, AND THE BERM RETAINS ITS SHAPE WHEN WALKED UPON.
 5. THE ENDS OF THE BERM SHOULD BE TIED INTO EXISTING UPSLOPE GRADE AND THE BERM SHOULD BE BURIED IN A TRENCH APPROXIMATELY 3 TO 4 INCHES DEEP.
 6. BERM SHALL BE INSTALLED PERPENDICULAR TO DIRECTION OF FLOW.
 7. INSPECTION SHOULD BE MADE WEEKLY AND AFTER EACH RAINFALL. FOR INSTALLATIONS IN STREAMBEDS, ADDITIONAL DAILY INSPECTIONS SHOULD BE MADE.
 8. REMOVE SEDIMENT AND OTHER DEBRIS WHEN BUILDUP REACHES 6 INCHES. DISPOSE OF THE ACCUMULATED SILT IN AN APPROVED MANNER THAT WILL NOT CAUSE ANY ADDITIONAL SILTATION.
 9. THE BERM SHOULD BE RESHAPED AND REPAIRED AS NEEDED DURING INSPECTION.
 10. THE BERM SHOULD BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
 11. THE ROCK BERM SHOULD BE LEFT IN PLACE UNTIL ALL UPSTREAM AREAS ARE STABILIZED AND ACCUMULATED SITE REMOVED.

GENERAL EROSION CONTROL NOTES

1. TEMPORARY EROSION AND SEDIMENTATION CONTROLS: AS DICTATED BY THE T.C.E.O. WHILE CONSTRUCTION IS IN PROGRESS, THE CONTRACTOR SHALL ENDEAVOR TO IMPEDE THE TRANSMISSION OFF THE CONSTRUCTION SITE OF ERODED TOPSOIL AND SHALL AVOID POLLUTION OF TOPSOIL/RUNOFF DUE TO FUELING OR SERVICING OF EQUIPMENT OR IMPROPER MATERIALS.
2. EXCAVATED MATERIAL NOT USED FOR FILL ON-SITE SHALL NOT BE STOCKPILED INDEFINITELY ON-SITE, BUT SHALL BE PROMPTLY TRANSPORTED OFF THE SITE. A SILT FENCE SHALL BE INSTALLED DOWN-SLOPE OF ANY PLACED FILL TO INHIBIT EROSION OF THE FILL MATERIAL.
3. THE CONTRACTOR SHALL SEED OR SOD WITH BERMUDA GRASS OR SOME OTHER FORM OF HARDY GRASS/PLANTS AS SOON AS POSSIBLE AFTER CONSTRUCTION IS COMPLETED.
4. THE SILT FENCING AND ROCK BERM SHOWN HERE-ON IS DESIGNED TO INTERCEPT SILT-CARRYING RUNOFF TO INHIBIT ITS BEING CARRIED OUTSIDE THE BOUNDARIES OF THE DEVELOPMENT TO DOWNGRADE FEATURES. IT IS OUR INTENTION AND ANY CONTRACTORS DIRECTION TO INSTALL SILT FENCES AND ROCK BERM AS SHOWN PRIOR TO ANY EXCAVATION OR TRENCHING WITHIN THE SITE.
5. REFERENCE POLLUTION PREVENTION PLAN FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
6. LOCATION OF SILT FENCE AND ROCK BERM IS APPROXIMATE. CONTRACTOR TO DETERMINE EXACT LOCATION BASED ON WORK TO BE PERFORMED UNDER THIS CONTRACT AND WORK TO BE PERFORMED BY VARIOUS AGENCIES INVOLVED WITH THIS PROJECT.
7. THIS SHEET IS TO BE USED FOR EROSION CONTROL PURPOSES ONLY.
8. LOCATION OF STABILIZED CONSTRUCTION ENTRANCE IS TO BE AS SHOWN ON THIS PLAN UNLESS CONTRACTOR RECEIVES PRIOR WRITTEN APPROVAL FROM THE ENGINEER.
9. CONTRACTOR TO INSTALL ROCK GABION IN LOCATIONS WHERE SIGNIFICANT CONCENTRATED STORM WATER DISCHARGE OCCURS TOWARDS AN ERODABLE AREA.



TYPICAL SILT FENCE DETAIL

NOT TO SCALE

SILT FENCE

1. DESIGNATED SILT FENCES CONSIST OF THE FOLLOWING: GEOTECHNICAL FILTER FABRIC STRETCHED AND SECURED TO THREE FOOT HIGH WIRE FENCING AND SUPPORTED BY STEEL POSTS AT A MAXIMUM SPACING OF 8 FEET. THE BOTTOM 6 INCHES OF FABRIC SHALL BE BURIED.
2. MAINTENANCE AND INSPECTIONS SHALL BE AS DESIGNATED IN THE STORM WATER POLLUTION PREVENTION PLAN.
3. ALL OFF-SITE CONSTRUCTION RELATED TO THIS PROJECT, BUT NOT SHOWN ON THIS PLAN, SHALL FOLLOW BEST MANAGEMENT PRACTICES DESCRIBED HEREIN.
4. UTILITY TRENCHES CUT PARALLEL TO THE EXISTING SLOPE. CONTRACTOR SHALL STOCKPILE EXCAVATED MATERIAL TO ONE SIDE OF THE TRENCH. SILT FENCING SHALL BE INSTALLED PERPENDICULAR TO THE SLOPE OUTSIDE STOCKPILED MATERIAL AT AN INTERVAL NOT TO EXCEED 50 FEET. CONTRACTOR SHALL ALSO PLACE SILT FENCING IMMEDIATELY DOWNSTREAM OF EXCAVATION TO A WIDTH THAT WILL SUFFICIENTLY INTERCEPT RUNOFF FROM ALL DISTURBED SOIL.
5. UTILITY TRENCHES CUT PERPENDICULAR TO THE EXISTING SLOPE. CONTRACTOR SHALL STOCKPILE EXCAVATED MATERIAL ON THE DOWN GRADIENT SIDE OF THE TRENCH. SILT FENCING SHALL BE PLACED DOWNGRADIENT TO THE STOCKPILE MATERIAL.

SEDIMENT TRAP NOTES

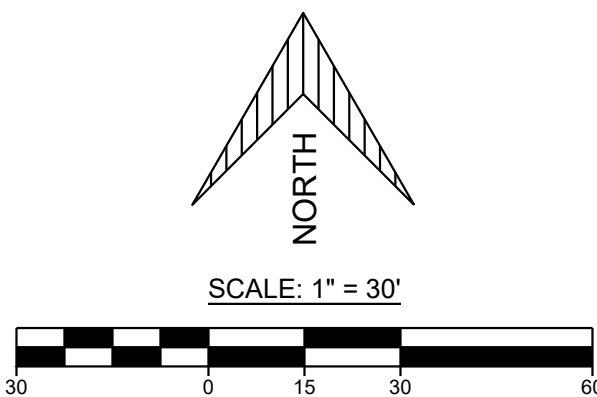
1. SEDIMENT SHOULD BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 4 INCHES OR MORE. REMOVED SEDIMENT SHOULD BE DISPOSED IN AN APPROVED AREA.
2. THE STRUCTURE SHOULD BE INSPECTED WEEKLY OR AFTER EACH RAIN AND REPAIRS MADE AS NECESSARY.
3. CONSTRUCTION SHOULD BE SCHEDULED TO MINIMIZE EROSION AND WATER POLLUTION.
4. THE STRUCTURE SHOULD BE REMOVED AND AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
5. THIS SHOULD BE LIMITED TO SMALL DRAINAGE AREAS WHERE ALL RUNOFF FROM A 10 YEAR 24 HOUR STORM CAN BE CAPTURED AND WHERE THE DRAINAGE AREA IS LESS THAN 5 ACRES.

STABILIZED CONSTRUCTION ENTRANCE (S.C.E.)

1. CLEAR THE AREA OF DEBRIS, ROCKS OR PLANTS THAT WILL INTERFERE WITH INSTALLATION.
2. GRADE THE AREA FOR THE ENTRANCE TO FLOW BACK ON TO THE CONSTRUCTION SITE. RUNOFF FROM THE S.C.E. ONTO A PUBLIC STREET WILL NOT BE ACCEPTED.
3. PLACE ROCK AS REQUIRED. (3" - 5" OPEN GRADED CLEAN CRUSHED STONE)
4. SIDE CONTAINMENT, AT THE CONTRACTOR'S DISCRETION, IS SUGGESTED. THE SPECIFIED 8" THICKNESS OF CRUSHED STONE MUST BE MAINTAINED.

GENERAL NOTES

1. REFERENCE POLLUTION PREVENTION PLAN FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
2. LOCATION OF SILT FENCE IS APPROXIMATE. CONTRACTOR TO DETERMINE EXACT LOCATION BASED ON WORK TO BE PERFORMED UNDER THIS CONTRACT AND WORK TO BE PERFORMED BY VARIOUS AGENCIES AND COMPANIES INVOLVED WITH THIS PROJECT.
3. THIS SHEET IS TO BE USED FOR EROSION CONTROL PURPOSES ONLY.
4. LOCATION OF STABILIZED CONSTRUCTION ENTRANCE IS TO BE AS SHOWN ON THIS PLAN UNLESS CONTRACTOR RECEIVES PRIOR WRITTEN APPROVAL FROM THE ENGINEER.
5. CONTRACTOR TO INSTALL ROCK GABION IN LOCATIONS WHERE SIGNIFICANT CONCENTRATED STORM WATER DISCHARGE OCCURS TOWARDS AN ERODABLE AREA.



LEGEND	
	SILT FENCE
	STABILIZED CONSTRUCTION ENTRANCE
	CONCRETE TRUCK WASHOUT PIT
	GRATE & CURB INLET PROTECTION
	FIBER ROLL BERM
	ROCK BERM
	EXISTING CONTOUR
	PROPOSED CONTOUR (REPRESENT FINISHED TOP OF PAVEMENT OR TOPSOIL)
	DEFINED SWALE
	PROPOSED RETAINING WALL
	PROPOSED SAWTOOTH CURB
	PROPOSED RIDGE
	PROPOSED FIN. FLOOR ELEVATION
	PROPOSED FOUNDATION BREAKS
	OVERLAND FLOW DIRECTION
	GRATE
	DRAINAGE FLOW (PROPOSED)
	LIMITS OF CONSTRUCTION AREA OF SOIL DISTURBANCE (TO BE REVEGETATED)
	WATERSHED BOUNDARY
	IMPERVIOUS COVER TO BE DEMOLISHED
	EROSION CONTROL MAT

THIS SHEET TO BE
USED FOR EROSION
CONTROL PURPOSES
ONLY.

ISSUED FOR PERMIT
03-19-2024

03-19-24
STATE OF TEXAS
RICHARD W. HENDRIX
107385
LICENSED PROFESSIONAL ENGINEER
Richard Hendrix

PRIMARY CONTACT:
RICHARD HENDRIX, P.E.

MBC ENGINEERS

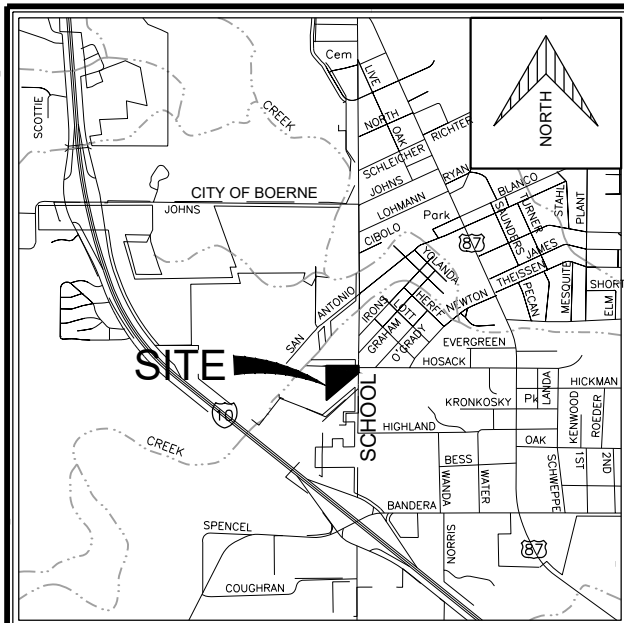
MACINA • BOSE • COPELAND & ASSOC., INC.
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(210) 545-1122 Fax (210) 545-9302 www.mbcengineers.com
FIRM REGISTRATION NUMBER: T.B.P.E. F-784 & T.B.P.L.S. 10011700

SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
EROSION CONTROL DETAILS

REVISIONS:	DATE	BY	DESCRIPTION
No.			
1			
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PLAT ID# -
DESIGN RH
DRAWN RH
CHECKED DLA
DATE 01-11-2021

JOB NO.
32653-BOERNE
C04.01



NOTE:
REFERENCE GENERAL NOTES ON SHEET C02.00
PRIOR TO BID AND CONSTRUCTION

NOTES TO CONTRACTOR

- CONTRACTOR SHALL NOTIFY CERTIFYING ENGINEER WHEN BASIN CONSTRUCTION HAS PROGRESSED TO THE FOLLOWING MILESTONES:
 - 1.1. REINFORCING STEEL FOR BASIN WALL HAS BEEN SET, CONCRETE HAS NOT BEEN PLACED AND DRAIN PIPE AND RISER PIPE IS IN PLACE. CONTRACTOR SHALL PROVIDE ENGINEER WITH SURVEY DATA WHICH DEMONSTRATES THE RISER PIPE HAS BEEN SET AT PROPER ELEVATION AND GRADE.
 - 1.2. BASIN HAS BEEN COMPLETELY FINISHED INCLUDING SOD OR SEED PLACEMENT (WHERE APPLICABLE).
- CONTRACTOR IS ADVISED THAT TCEQ DOES NOT ALLOW CHANGES TO PERMANENT POLLUTION ABATEMENT MEASURES WITHOUT THEIR APPROVAL.
- UPON SUBSTANTIAL COMPLETION, OR AS REQUIRED BY ENGINEER, CONTRACTOR TO PROVIDE CERTIFYING ENGINEER WITH FIELD SHOTS VERIFYING ELEVATIONS OF THE FOLLOWING:
 - 3.1. TOP OF WALL AT EACH CORNER OF BASIN
 - 3.2. TOE OF WALL AT EACH CORNER OF BASIN (INSIDE BASIN TOE)
- WORK SHALL NOT CONTINUE ON THE BASIN UNTIL THE ENGINEER HAS HAD AN OPPORTUNITY TO OBSERVE THE STATUS OF CONSTRUCTION AT EACH STAGE. CONTRACTOR SHALL PROVIDE ENGINEER A MINIMUM OF 24 HOURS ADVANCE NOTICE PRIOR TO TIME THE BASIN WILL BE AT THE REQUIRED STAGE.
- THE MINIMUM DRAIN TIME FOR A FULL BASIN IS 24 HOURS. CONTRACTOR TO SET BUTTERFLY VALVE TO FULLY OPEN TO BE CONTROLLED DDC CONTROLLER.
- BEFORE FINAL ACCEPTANCE OF CONSTRUCTION BY THE OWNER, THE CONTRACTOR WILL REMOVE ALL TRASH, DEBRIS AND ACCUMULATED SILT FROM THE BASINS AND REESTABLISH THEM TO THE PROPER OPERATING CONDITION.

GENERAL NOTES

- THE DETENTION POND FACILITY SHALL ALSO BE USED AS A TEMPORARY SEDIMENT TRAP FOR THE PURPOSES OF THE TEXAS POLLUTION DISCHARGE ELIMINATION SYSTEM CONSTRUCTION PERMIT FOR THIS SITE. AT THE LOCATION OF THE 12" WIDE (MIN) MAINTENANCE RAMP, A 12 FOOT WIDE GATE (EITHER BEING A SINGLE GATE OR TWO 6' WIDE GATES) WITH LOCK SHALL BE PROVIDED TO ALLOW ACCESS TO THE WATER QUALITY POND.
- CONTRACTOR TO HYDROMULCH ENTIRE DISTURBED LIMITS OF EARTHEN PORTION OF POND, 85% OF POND SURFACE MUST HAVE ESTABLISHED VEGETATION PRIOR TO ACCEPTANCE OF THE POND BY THE CITY OF BOERNE.
- THE CONTRACTOR SHALL NOTIFY A UTILITY LOCATOR AT LEAST 48 HOURS PRIOR TO PERFORMING ANY EXCAVATION ACTIVITY ADJACENT TO THE CONSTRUCTION OF ANY ON-SITE DRAINAGE FACILITIES TO PROTECT ANY UNIDENTIFIED EXISTING UNDERGROUND UTILITY FACILITY FROM DAMAGE OR HARM. THE CONTRACTOR SHALL HAVE THE SOLE RESPONSIBILITY FOR ANY DAMAGES TO UTILITIES AS A RESULT OF NOT LOCATING UNDERGROUND UTILITY RESOURCES.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE UDC OF THE CITY OF BOERNE, TEXAS.
- ANY AREAS EXPOSED TO HIGH VELOCITY FLOWS SHALL EITHER HAVE A 6" THICK ROCK GABION MATTRESS INSTALLED OR THE INSTALLATION OF APPROPRIATE GEOTECHNICAL LINER AS DIRECTED BY THE CONSTRUCTION ENGINEER IN CHARGE.
- ALL CONCRETE SHALL BE A MINIMUM OF 4000 PSI @ 28 DAYS COMPRESSIVE STRENGTH UNLESS OTHERWISE SPECIFIED HEREIN ON THESE DOCUMENTS.
- THE OWNER SHALL SPECIFY THE USE OF EITHER A CHAINLINK FENCE OR A WOODEN PRIVACY FENCE. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER PRIOR TO INSTALLATION AND CONSTRUCTION.

GENERAL NOTES

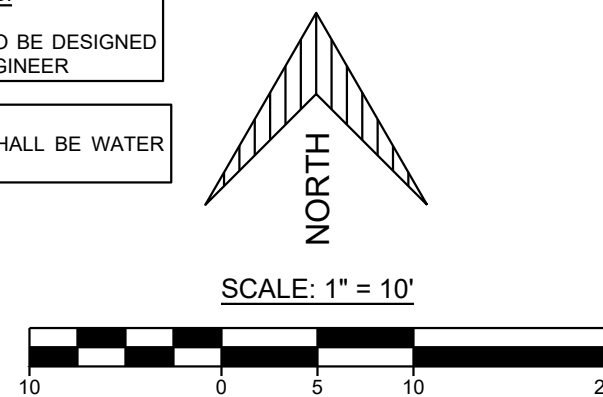
- A 6 FOOT HIGH FENCE (WOOD, CHAINLINK, OR OTHER DECORATIVE FENCE AS SPECIFIED BY THE OWNER OR BY RESTRICTIVE COVENANT) SHALL BE INSTALLED AT THE TOP OF THE WATER QUALITY BASIN ALONG ALL SIDES. AT THE LOCATION OF THE 12" WIDE (MIN) MAINTENANCE RAMP, A 12 FOOT WIDE GATE (EITHER BEING A SINGLE GATE OR TWO 6' WIDE GATES) WITH LOCK SHALL BE PROVIDED TO ALLOW ACCESS TO THE WATER QUALITY POND.
- ALL CONCRETE SHALL BE 4000 PSI COMPRESSIVE STRENGTH AFTER 28 DAYS OR GREATER.
- ALL REBAR SPICES AND LAPS SHALL BE A MINIMUM OF 48 BAR DIAMETERS UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR SHALL ALERT ENGINEER FOR FIELD OBSERVATION A MIN. OF 24 HOURS PRIOR TO EACH OF THE FOLLOWING EVENTS: DRAIN PIPE INSTALLATION COMPLETION, AND ANY CONCRETE POURS. THE CONTRACTOR SHALL ALSO PROVIDE A MATERIAL SUBMITTAL TO THE ENGINEER FOR REVIEW ON THE FOLLOWING MATERIALS: PERMEABLE GEOTEXTILE FABRIC, CLAY LINER.
- CONTRACTOR SHALL INSTALL AND ESTABLISH 85% VEGETATION IN BASIN PRIOR TO SITE CLOSEOUT.
- UPON COMPLETION OF CONSTRUCTION, AND IN ACCORDANCE WITH TCEQ REGULATIONS, ALL PERMANENT BMP'S (BASIN) MUST BE CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER.
- ALL AREAS DISTURBED AS PART OF CONSTRUCTION OF BASIN SHALL BE REVEGETATED PRIOR TO COMPLETION.
- UPON COMPLETION OF CONSTRUCTION, AND IN ACCORDANCE WITH TCEQ REGULATIONS, ALL PERMANENT BMP'S MUST BE CERTIFIED BY A REGISTERED PROFESSIONAL ENGINEER.
- ALL AREAS DISTURBED AS PART OF CONSTRUCTION OF BASIN SHALL BE REVEGETATED PRIOR TO COMPLETION.
- BASIN DRAINDOWN IS CONTROLLED BY THE 6" PVC PIPE. BASIN DRAIN DOWN WILL OCCUR IN APPROXIMATELY 24 HOURS.
- CONTRACTOR TO SET THE VALVE POSITION TO FULLY OPEN.
- CLAY SUBGRADE CONDITIONS ON SITE TODAY. DURING CONSTRUCTION, THE CONTRACTOR IS REQUIRED TO COORDINATE WITH THE GEOTECH ENGINEER OF RECORD AND CIVIL ENGINEER TO DETERMINE IF EXISTING CLAY SUBGRADE IS SUITABLE IN LIEU OF NEW CLAY PLACEMENT.

RETAINING WALL NOTES:

- RETAINING WALLS TO BE DESIGNED BY STRUCTURAL ENGINEER

NOTE:

- ALL STORM DRAIN SHALL BE WATER TIGHT PIPE.



NOTE:
CONTRACTOR SHALL INSTALL THE PERMANENT BMP BASIN PER CIVIL AND STRUCTURAL PLANS AT THE START OF PHASE 1 CONSTRUCTION. IN PLACE OF THE FILTERATE AND UNDER DRAIN, A RISER PIPE SHALL BE INSTALLED AS SHOWN ABOVE. ALSO, THE CONTRACTOR IS TO INSTALL A SEDIMENT DEPTH MARKER AT 50% CAPACITY OF THE TEMPORARY BASIN. INSPECTIONS SHALL BE MADE WEEKLY AND AFTER EACH RAINFALL. TRASH AND OTHER DEBRIS SHALL BE REMOVED WHEN FOUND TO PREVENT CLOGGING OF THE OUTLET STRUCTURE. ONCE SEDIMENT REACHES THE 50% MARKER THEN ALL SEDIMENT SHALL BE REMOVED FROM THE TEMPORARY BASIN. UPON COMPLETION OF PHASE 1 THE RISER SHALL BE REPLACED WITH THE REQUIRED PERMANENT FILTERATE AND UNDER DRAIN SYSTEM.

GENERAL NOTES:

- THE CONTRACTOR SHALL COORDINATE WITH THE OWNER/ARCHITECT PRIOR TO BID AND CONSTRUCTION REGARDING THE FINISH OF THE EXPOSED EXTERIOR WALLS. THE CONCRETE WALLS SHALL BE CONSTRUCTED WITH A CHAMFERED EDGE AT THE TOP OF WALL.
- CONTRACTOR TO SUBMIT STRUCTURAL DESIGN FOR POND SEALED BY LICENSED PROFESSIONAL ENGINEER.
- THE STORM DRAIN SYSTEM MUST BE CLEAN OF ALL SEDIMENT FOR FINAL ACCEPTANCE AND PRIOR TO REQUEST FOR RETAINAGE.
- CONTRACTOR TO CONTACT CIVIL ENGINEER AFTER FORMS HAVE BEEN SET & PRIOR TO CONCRETE PLACEMENT AT (210) 545-1122.
- BASIN TO BE FENCED AT ALL EXPOSED TOP OF WALLS WIGATES PROVIDED FOR ENTRANCE RAMPS AND MAINTENANCE.

NOTES TO CONTRACTOR:

- THIS SHEET HAS BEEN PREPARED FOR THE PURPOSES OF POLLUTION ABATEMENT ONLY. ALL OTHER CIVIL ENGINEERING RELATED INFORMATION SHOULD BE ACQUIRED FROM THE APPROPRIATE SHEET IN THE CIVIL IMPROVEMENT PLANS. CONTRACTOR IS ADVISED THAT TCEQ DOES NOT ALLOW CHANGES TO PERMANENT POLLUTION ABATEMENT MEASURES WITHOUT THEIR PRIOR APPROVAL.
- CONTRACTOR SHALL NOTIFY CERTIFYING ENGINEER WHEN BASIN CONSTRUCTION HAS PROGRESSED TO THE FOLLOWING MILESTONES:

- REINFORCING STEEL FOR BASIN WALL HAS BEEN SET, CONCRETE HAS NOT BEEN PLACED AND DRAIN PIPE IS IN PLACE.
 - CONCRETE WALLS IN PLACE AND UNDER DRAIN SYSTEM IS IN PLACE WITHOUT GRAVEL.
 - GRAVEL AROUND UNDER DRAIN SYSTEM IS IN PLACE AND FILTER FABRIC IS INSTALLED AND ATTACHED TO WALLS OR.
 - SAND FILTER MEDIA HAS BEEN PLACED AND BASIN HAS BEEN COMPLETELY FINISHED.
- ELEVATIONS SHOWN INSIDE BASIN ARE AT BASIN FLOOR UNLESS NOTED OTHERWISE.
 - DIMENSIONS ARE FROM FACE OF WALL. WALL THICKNESS TO BE DETERMINED BY A STRUCTURAL ENGINEER.
 - WORK SHALL NOT CONTINUE ON THE BASIN UNTIL THE ENGINEER HAS HAD AN OPPORTUNITY TO OBSERVE THE STATUS OF CONSTRUCTION AT EACH STAGE. CONTRACTOR SHALL PROVIDE ENGINEER A MINIMUM OF 24 HOURS ADVANCE NOTICE PRIOR TO TIME THE BASIN WILL BE AT THE REQUIRED STAGE.
 - PRIOR TO PROCEEDING TO NEXT STAGE OF CONSTRUCTION, CONTRACTOR TO PROVIDE CERTIFYING ENGINEER WITH FIELD SHOTS VERIFYING ELEVATIONS OF THE FOLLOWING:
 - TOP OF WALL AT EACH CORNER OF BASIN
 - TOE OF WALL AT EACH CORNER OF BASIN (INSIDE BASIN TOE)
 - SPLASH PAD INLET PIPES
 - OVERFLOW WEIRS
 - UPON COMPLETION OF CONSTRUCTION AND IN ACCORDANCE WITH TCEQ REGULATIONS, ALL PERMANENT BMP'S (BASIN) MUST BE CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER.
 - BEFORE FINAL ACCEPTANCE OF CONSTRUCTION BY THE OWNER, THE CONTRACTOR WILL REMOVE ALL TRASH, DEBRIS, AND ACCUMULATED SILT FROM THE BASIN AND REESTABLISH IT TO THE PROPER OPERATING CONDITION.
 - THE MINIMUM DRAIN TIME FOR A FULL BASIN IS 24 HOURS. THE CONTRACTOR SHALL RESTRICT THE FLOW THROUGH THE BASIN BY ADJUSTING THE GATE VALVE ON THE DISCHARGE PIPE SO AS TO PROVIDE THE MINIMUM 24 HOUR DRAIN DOWN TIME.
 - ALL AREAS DISTURBED AS PART OF CONSTRUCTION OF BASIN SHALL BE REVEGETATED PRIOR TO COMPLETION.

- SUMMARY OF PERMANENT POLLUTION ABATEMENT MEASURES:
- TEMPORARY BMP'S WILL BE MAINTAINED UNTIL THE RESPECTIVE WATERSHED HAS BEEN STABILIZED.
 - ALL AREAS OF DISTURBED SOIL WHICH WILL NOT OTHERWISE BE STABILIZED SHALL BE REVEGETATED TO STABILIZE SOIL USING SOLID BLOCK SOD IN A STAGGERED PATTERN. FOR AREAS OUTSIDE THE BASINS, THE CONTRACTOR MAY SUBSTITUTE SEED-IMPREGNATED EROSION CONTROL MATS OR HYDRAULIC MULCHING AND WATERING UNTIL VEGETATION IS ESTABLISHED. SEED MIXTURE AND/OR GRASS TYPE TO BE DETERMINED BY OWNER.
 - PERMANENT BMP'S FOR THIS SITE INCLUDE SEDIMENTATION/FILTRATION PONDS "A" AND "B". THESE PERMANENT BMP'S HAVE BEEN DESIGNED TO REMOVE 80% OF THE INCREASED TOTAL SUSPENDED SOLIDS (TSS) FOR DRAINAGE AREAS "A", "B" AND "C" (UNCAPTURED) IN ACCORDANCE WITH THE TCEQ'S TECHNICAL GUIDANCE MANUAL RG 348 (2005).
 - ENERGY DISSIPATORS (TO HELP REDUCE EROSION) WILL BE PROVIDED AT POINTS OF CONCENTRATED DISCHARGE WHERE EXCESSIVE VELOCITIES MAY BE ENCOUNTERED.

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BATCH BASIN DESIGN DATA

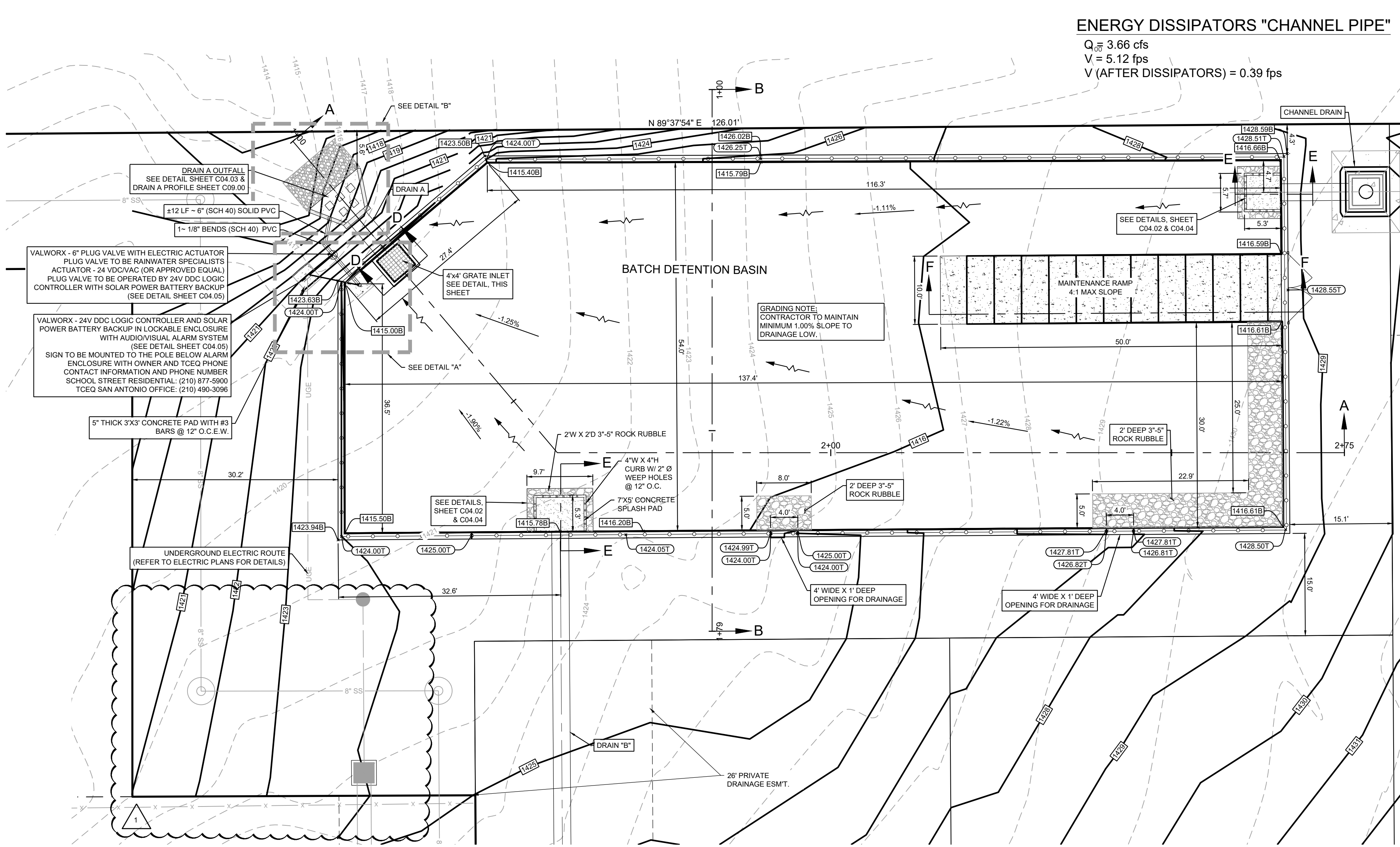
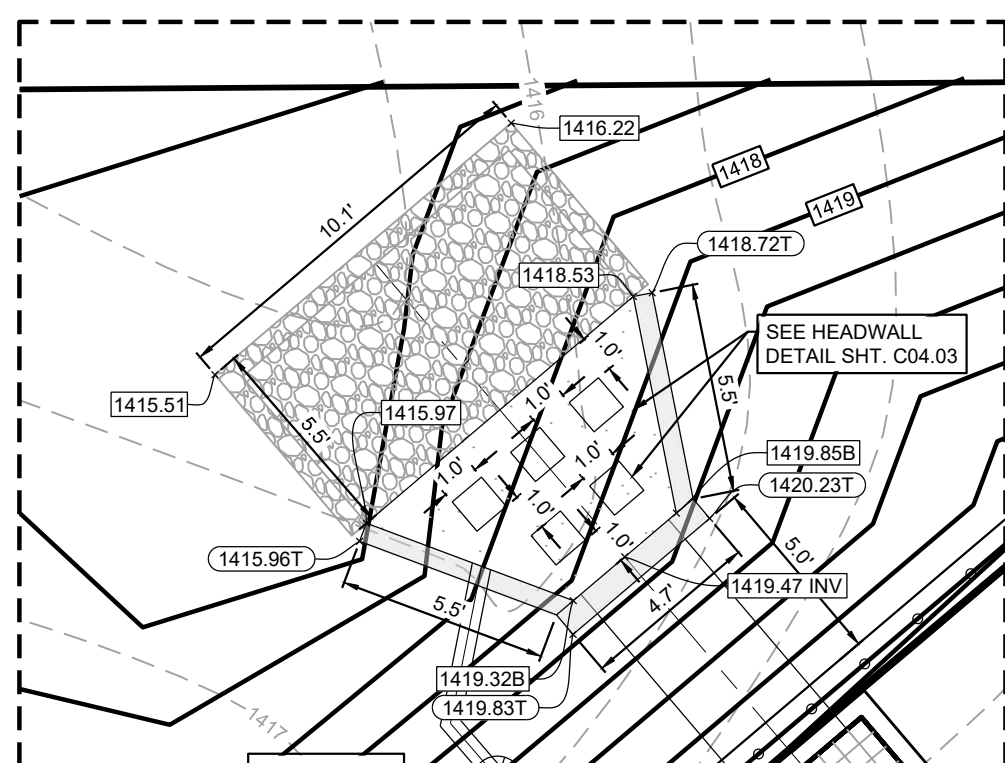
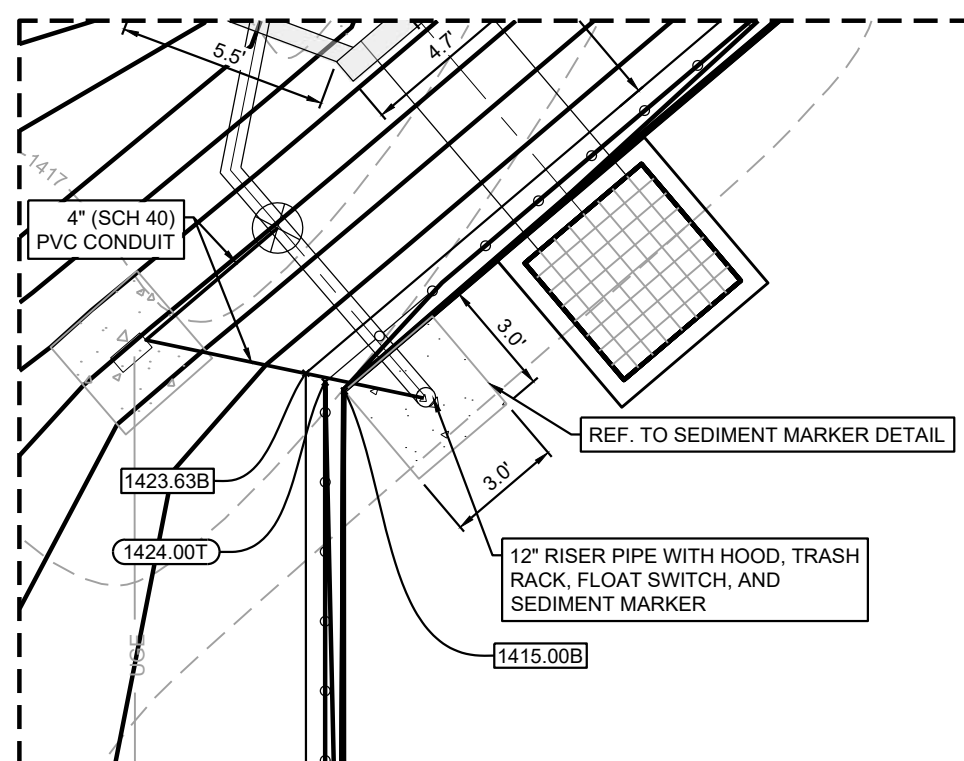
WATERSHED AREA	=	8.45 AC
WATER STORAGE DEPTH	=	7.15 FT (AVE.)
WATER QUALITY STORAGE DEPTH	=	2.02 FT (AVE.)
REQUIRED CAPTURE VOLUME (WQV)	=	13,426 CF
PROPOSED CAPTURE VOLUME (WQV)	=	13,686 CF
DETENTION VOLUME	=	42,329 CF
PROPOSED BASIN CAPTURE VOLUME	=	56,015 CF (DESIGNED)
Q100	=	46.72 CFS

SITE CONCRETE DRAINAGE NOTES:

- EXPOSED CONCRETE SURFACES SHALL BE BROOM FINISHED.
- ANY IRREGULAR AREA SHALL BE HAND RUBBED TO A SMOOTH FINISH.
- ALL EXPOSED EDGES SHALL RECEIVE A 3/4" CHAMFER.
- ALL MATERIALS AND WORKMANSHIP SHALL BE DONE IN ACCORDANCE WITH CITY OF BOERNE STANDARD SPECIFICATIONS, AS WELL AS ITEM 360 (TXDOT STD SPECS, LATEST ED.)
- JOINTS TO BE COMPLETED PRIOR TO CONCRETE SHRINKAGE OCCURRING.
- CONCRETE FOR CHANNEL RIP-RAP SHALL BE CLASS "A" 4,000 PSI.
- NEW RIP-RAP SHALL BE ATTACHED TO EXISTING RIP-RAP BY NO. 4 BARS DOWELED 6" INTO EXISTING RIP-RAP. THESE BARS ARE TO BE PLACED 18" O.C. AND HAVE A LENGTH OF 18"
- CONCRETE RIP-RAP SHALL BE 6" THICK, WITH NO. 4 REINFORCING BARS AT 18" O.C.E.W. (MIN. GRADE 40 STEEL).

ENERGY DISSIPATORS "CHANNEL PIPE"

$$Q = 3.66 \text{ cfs}$$
$$V = 5.12 \text{ fps}$$
$$V \text{ (AFTER DISSIPATORS)} = 0.39 \text{ fps}$$

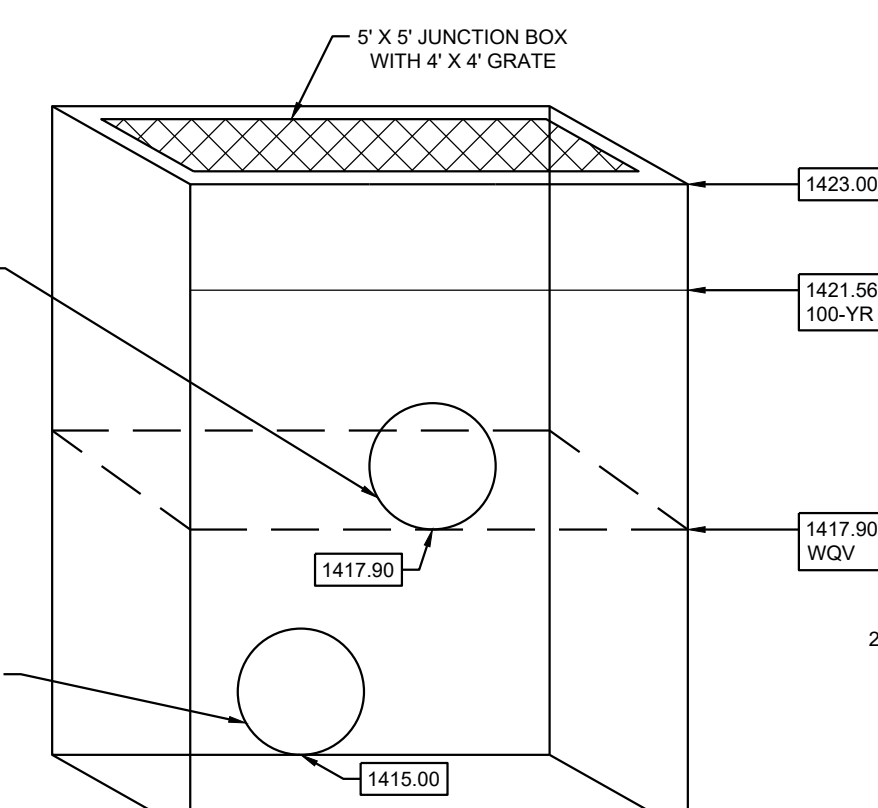


SEQUENCE OF OPERATION:

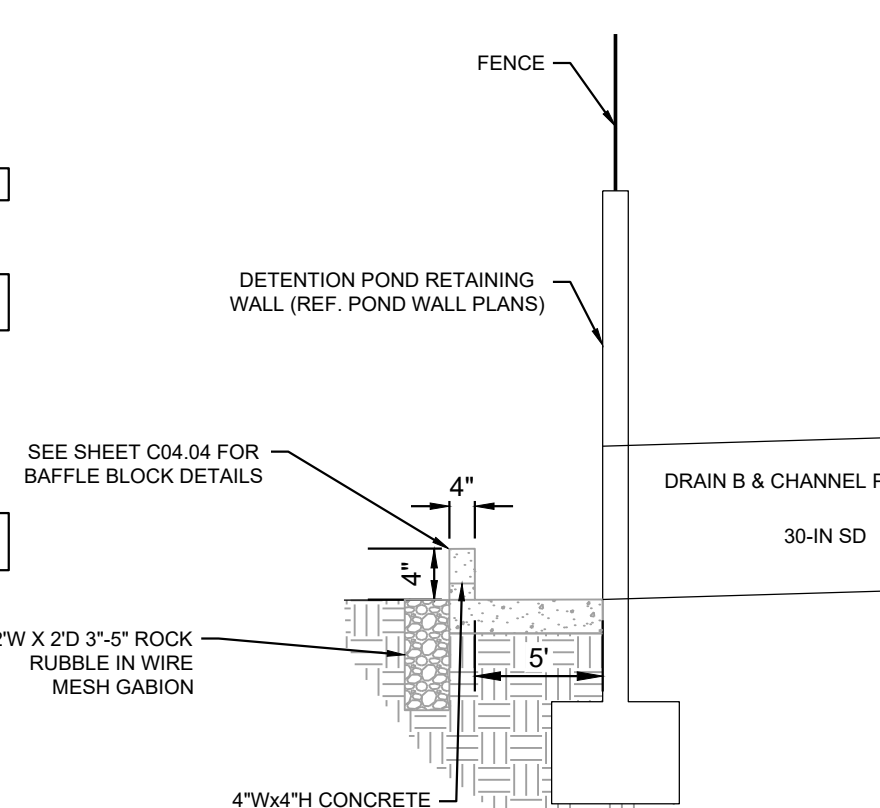
- UPON ACTIVATION OF FLOAT SWITCH, DDC CONTROLLER TO START DETENTION TIMER #1.
- DETENTION TIMER #1 TO BE MANUALLY SET TO 12 HOURS AND TO BE USER ADJUSTABLE VALUE.
- WHEN DETENTION TIMER #1 HAS ELAPSED, A 6" BUTTERFLY VALVE IS TO OPEN AND RELEASE DETAINED WATER FROM BASIN.
- UPON DEACTIVATION OF FLOAT SWITCH, DDC CONTROLLER TO START DETENTION TIMER #2.
- DETENTION TIMER #2 TO BE MANUALLY SET TO 24 HOURS AND TO BE USER ADJUSTABLE.
- WHEN DETENTION TIMER #2 HAS ELAPSED, THE 6" BUTTERFLY VALVE IS TO CLOSE.
- VALVE TO BE ACTIVATED PERIODICALLY TO SHOW ACTIVITY REGARDLESS OF FLOAT SWITCH OPERATION.

BASIN LINING NOTE:

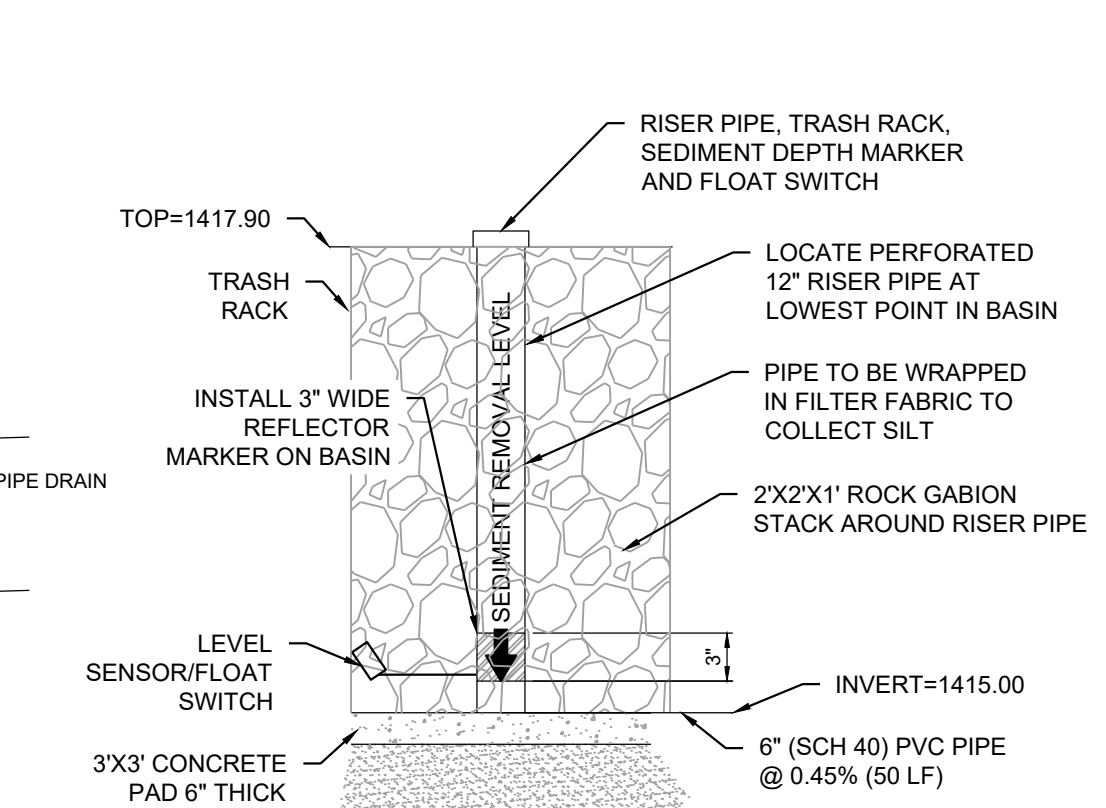
BASINS MUST BE CONSTRUCTED TO PREVENT POSSIBLE CONTAMINATION OF GROUNDWATER BELOW THE BASIN. BASIN LININGS SHOULD CONFORM TO GUIDELINES FOUND IN SECTION 3.4.2 OF THE TCEQ TECHNICAL GUIDANCE MANUAL (RG-348 APPENDUM 3.4.18.6).



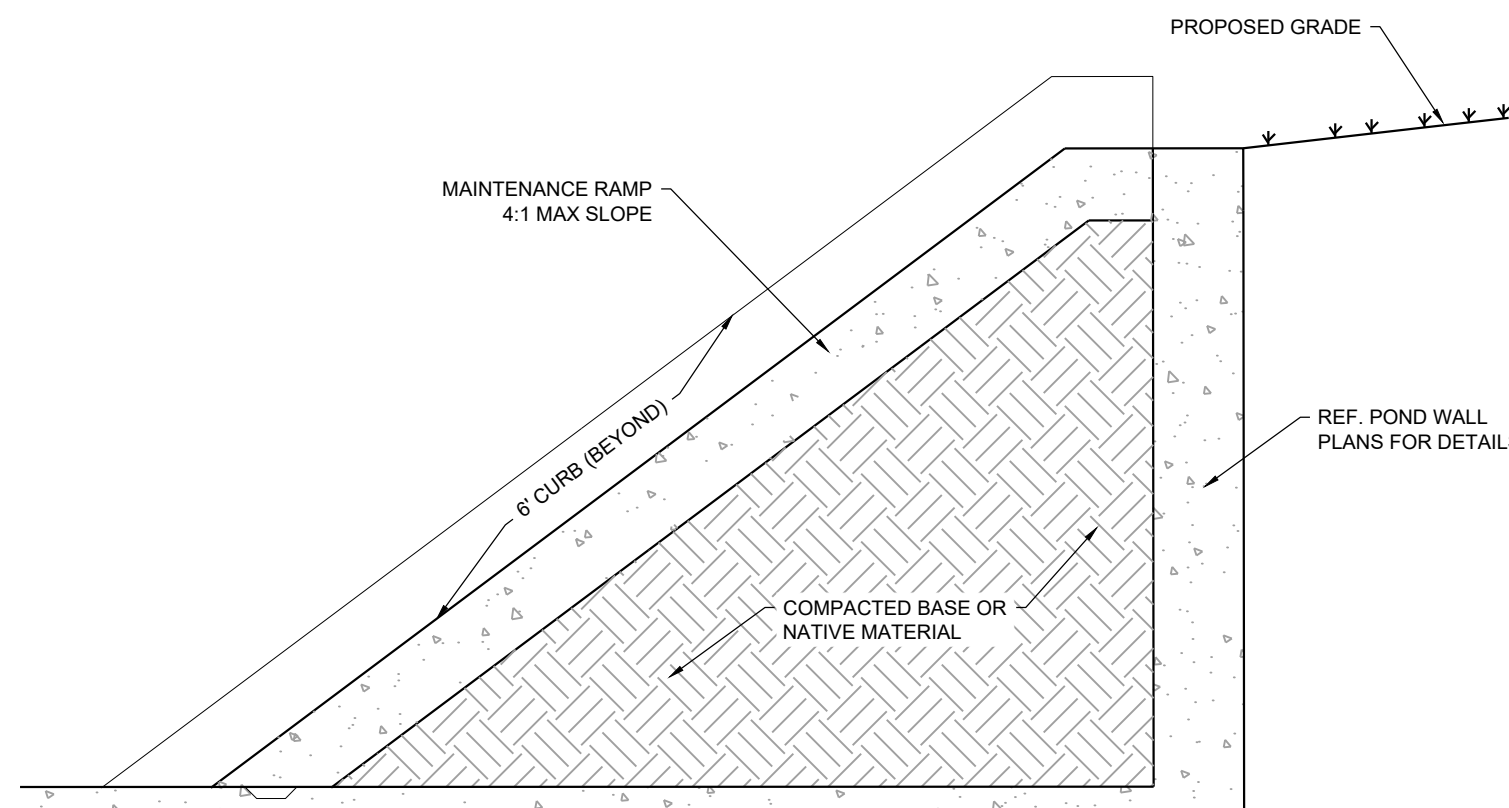
SECTION D-D
POND OUTFALL STRUCTURE
N.T.S.



SECTION E-E
PIPE OUTFALL STRUCTURE
N.T.S.



SEDIMENT REMOVAL MARKER
WITH TRASH SCREEN/RACK
N.T.S.



SECTION "F-F"
N.T.S.

ISSUED FOR PERMIT
05-07-2024

57702024
STATE OF TEXAS
RICHARD W. HENDRIX
107385
LICENSED PROFESSIONAL ENGINEER
Richard Hendrix

PRIMARY CONTACT:
RICHARD HENDRIX, P.E.

MACINA • BOSE • COPELAND & ASSOC., INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
1035 Central Parkway North, San Antonio, Texas 78232
(210) 545-1122 Fax (210) 545-9502 www.mbcngineers.com
FIRM REGISTRATION NUMBER: T.B.P.E. F-784 & T.B.P.L.S. 10011700

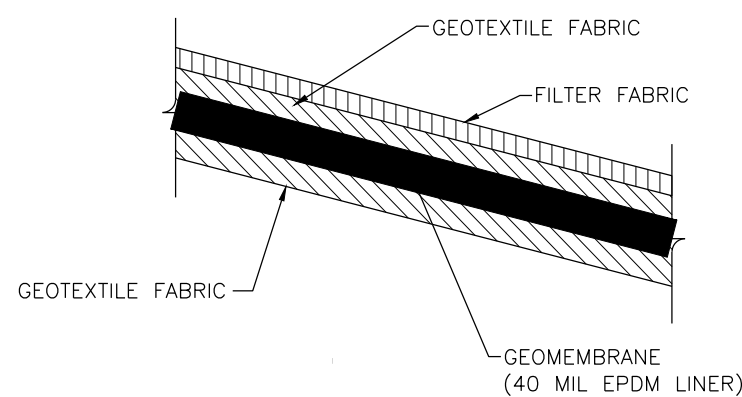
mbc
ENGINEERS

SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
PRIVATE LID POND

REVISIONS:	No.	DATE	DESCRIPTION	BY
	1	03/20/2024	EXTEND GRAVITY SEWER REMOVE LIFT STATION	RH
	2	06/07/2024	CITY SEWER COMMENTS	RH

PLAT ID# -
DESIGN - RH
DRAWN - RH
CHECKED - DLA
DATE - 01-11-2021
JOB NO.
32653-BOERNE
C04.02

Date: Mar 19, 2024, 11:03am User ID: lporcalaz Layout: LID POND DETAILS 2
File: P:\Boerne\32653-502 S School St\Design\Civil\lid-pond plan-2063.dwg Layout name: LID POND DETAILS 2

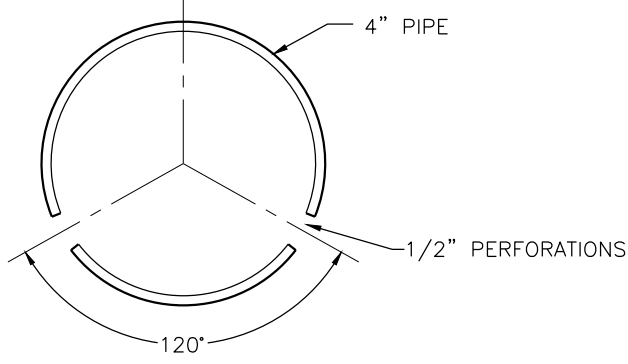


LINER DETAIL

N.T.S.

NOTE: LINER AND PROTECTIVE GEOTEXTILE FABRIC, ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

GEOTEXTILE FABRIC SPECIFICATIONS

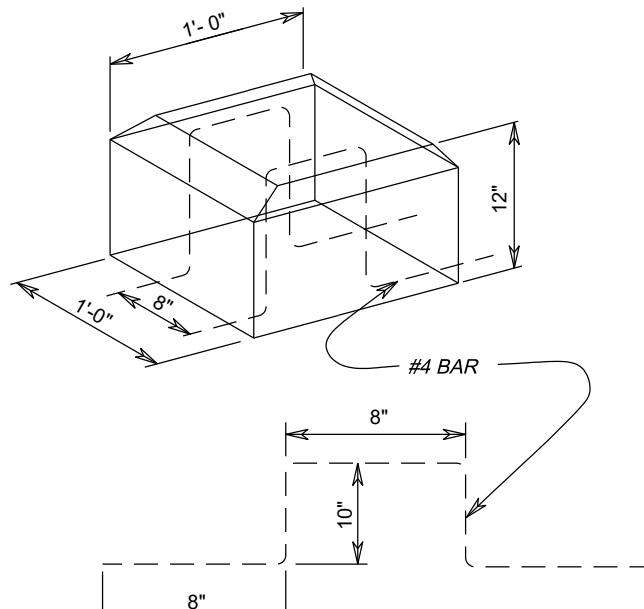


NOTES:

1. MINIMUM DIAMETER = 4" SCHEDULE 40 PVC. (SEE PLAN VIEW)
2. THE MAXIMUM SPACING BETWEEN ROWS OF PERFORATIONS SHOULD NOT EXCEED 6".
3. SET PERFORATION DOWNS.
4. PERFORATIONS SHOULD BE LESS THAN 1/2".
5. PIPES SHOULD LIE FLAT ON CONCRETE BOTTOM WHICH HAS BEEN GRADED TO DRAIN AS SHOWN ON PLAN VIEW.
6. ALL CLEANOUTS SHALL BE SOLID PIPE WITH A CLEANOUT AT THE END OF EACH LINE.

4" MINIMUM PERFORATED PIPE

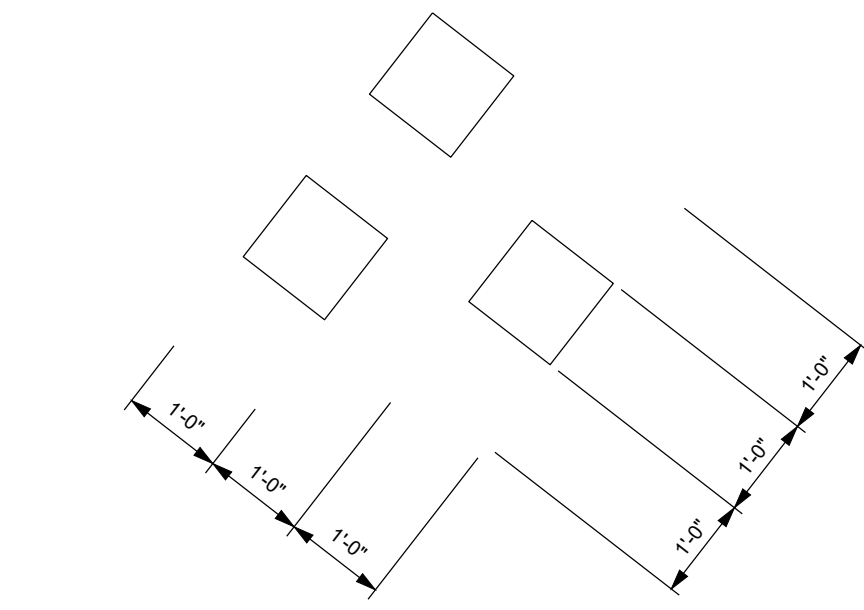
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FLOW BLOCK DETAIL

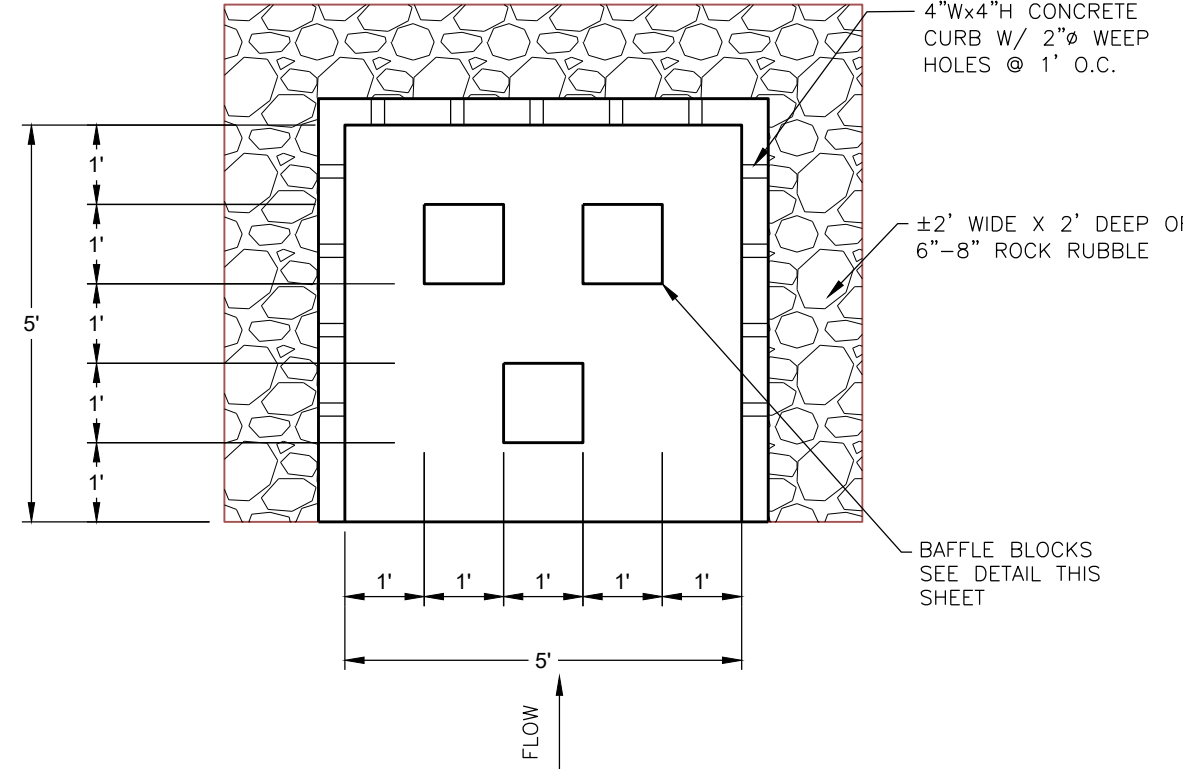
N.T.S.

FLOW BLOCK TYPICAL LAYOUT - DRAIN "CHANNEL PIPE"



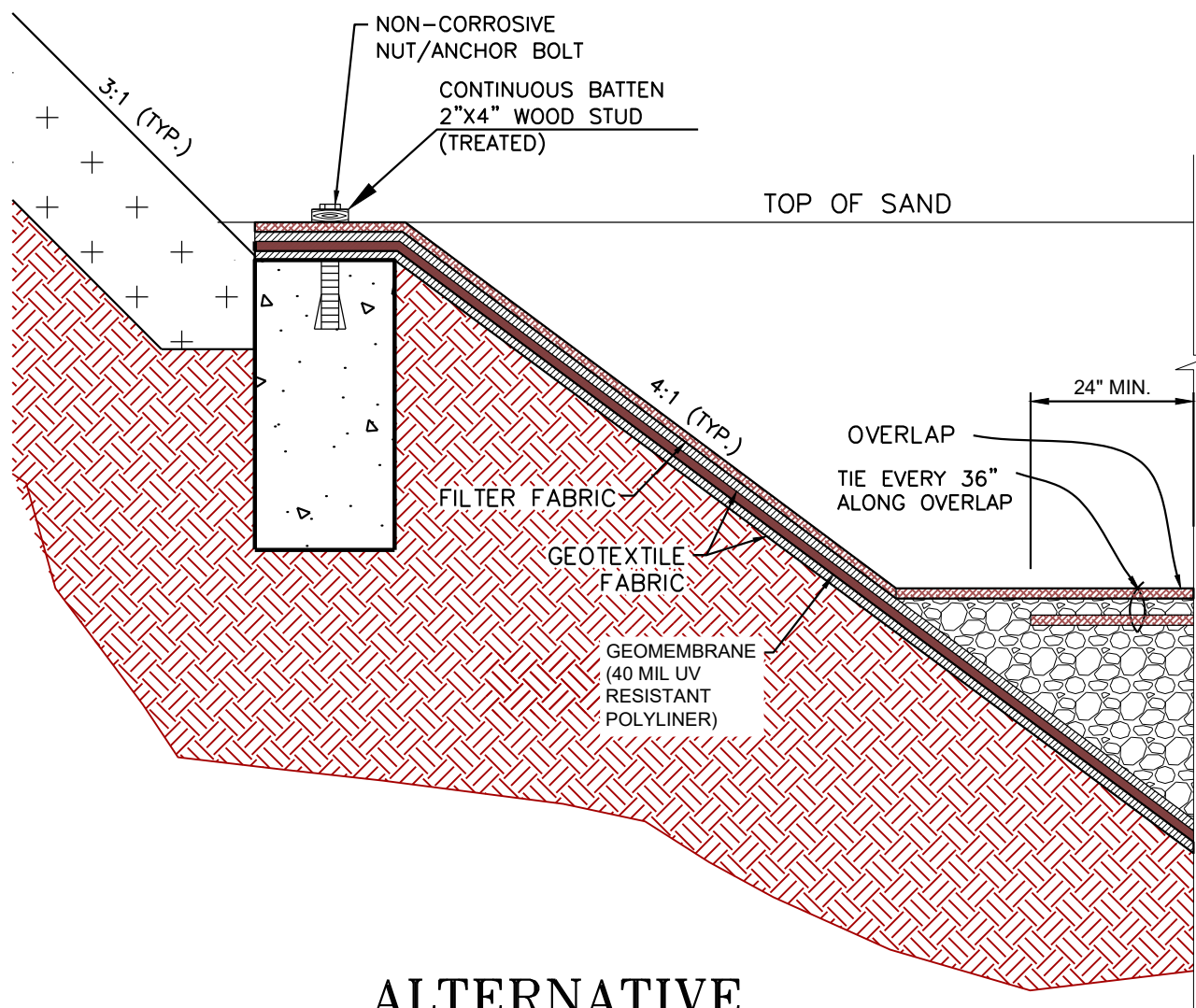
FLOW BLOCK TYPICAL LAYOUT

N.T.S.



SPLASH PAD DETAIL - CHANNEL PIPE

N.T.S.



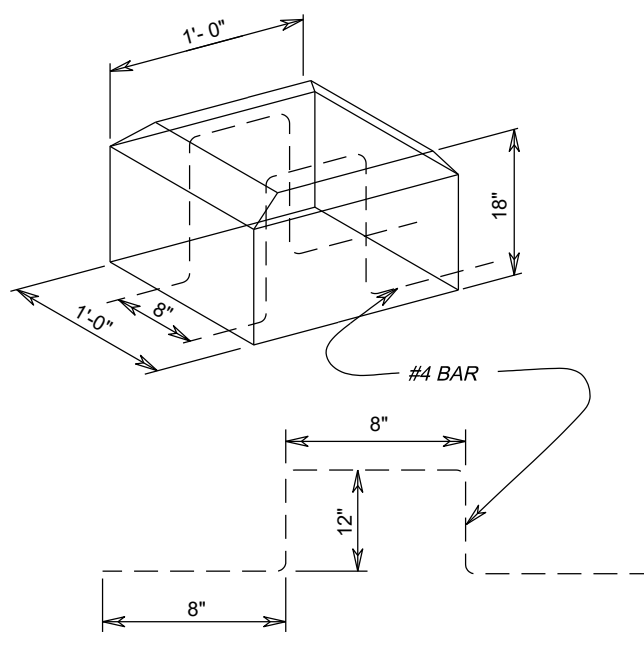
ALTERNATIVE FILTER FABRIC & LINER OVERLAP & ANCHORING DETAIL

GEOTEXTILE FABRIC SPECIFICATIONS

Table 3-7 Geotextile Fabric Specifications (COA, 2004)

Property	Test Method	Unit	Specification (min)
Unit Weight		oz/yd ²	8
Filtration Rate		in/sec	0.08
Puncture Strength	ASTM D-751*	lb	125
Mullen Burst Strength	ASTM D-751	psi	400
Tensile Strength	ASTM D-1682	lb	200
Equiv. Opening Size	US Standard Sieve	No.	80

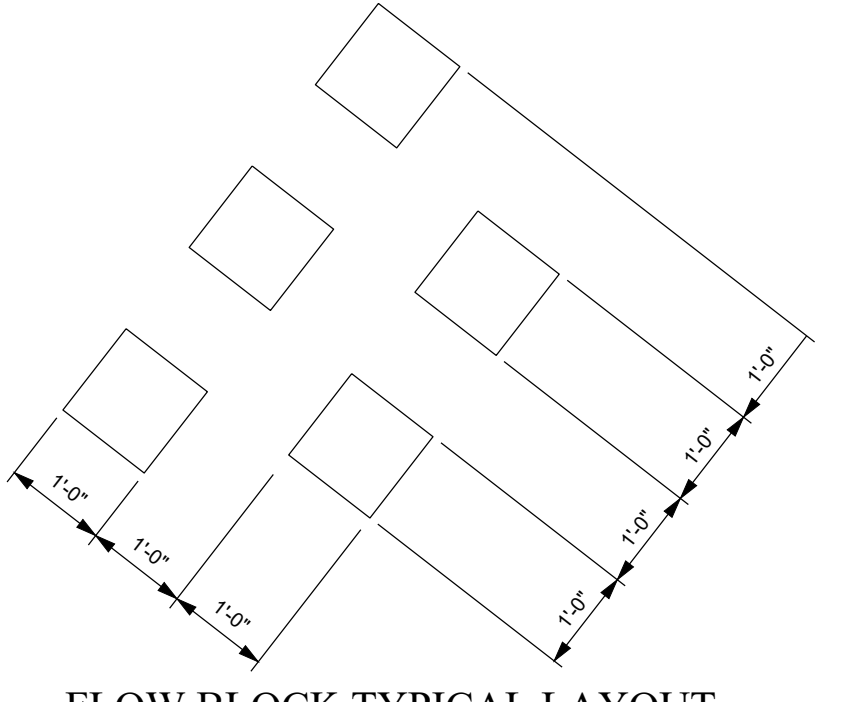
*modified



FLOW BLOCK DETAIL

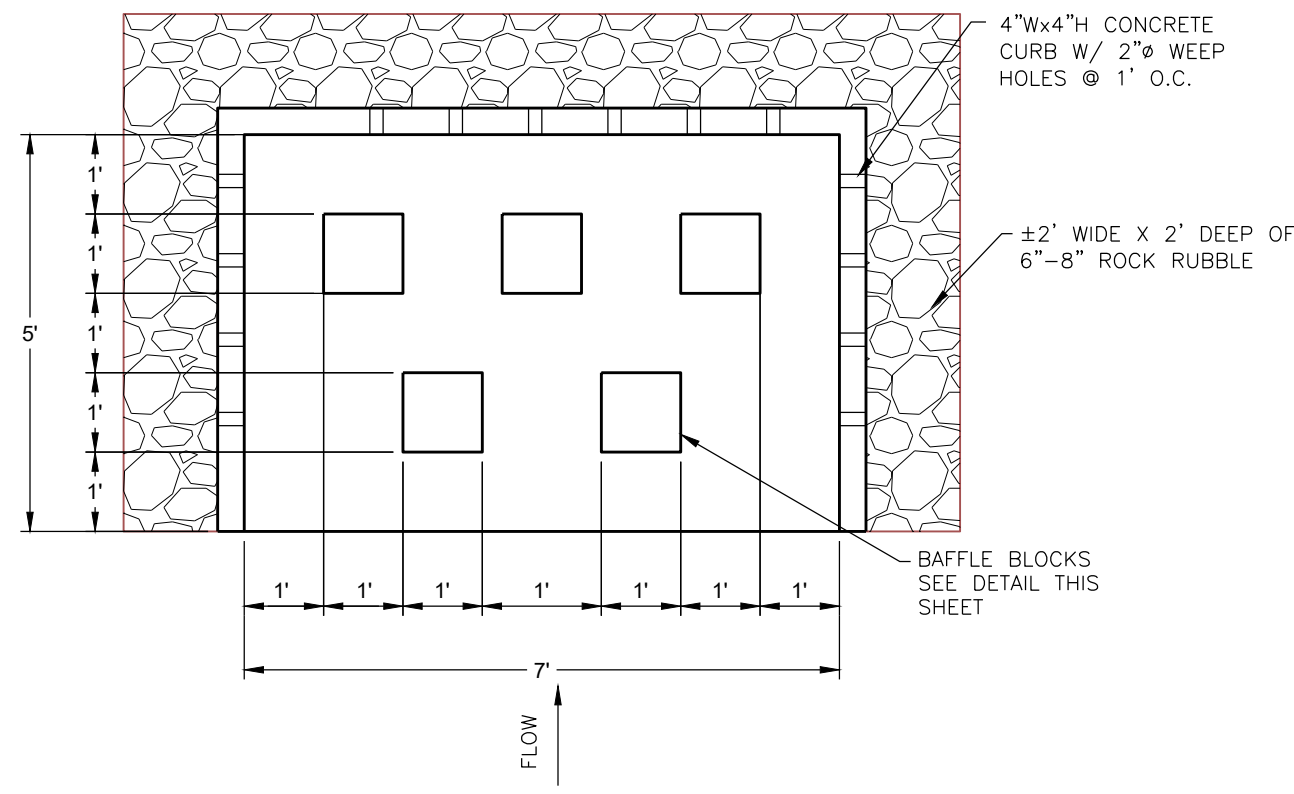
N.T.S.

FLOW BLOCK TYPICAL LAYOUT - DRAIN "B"



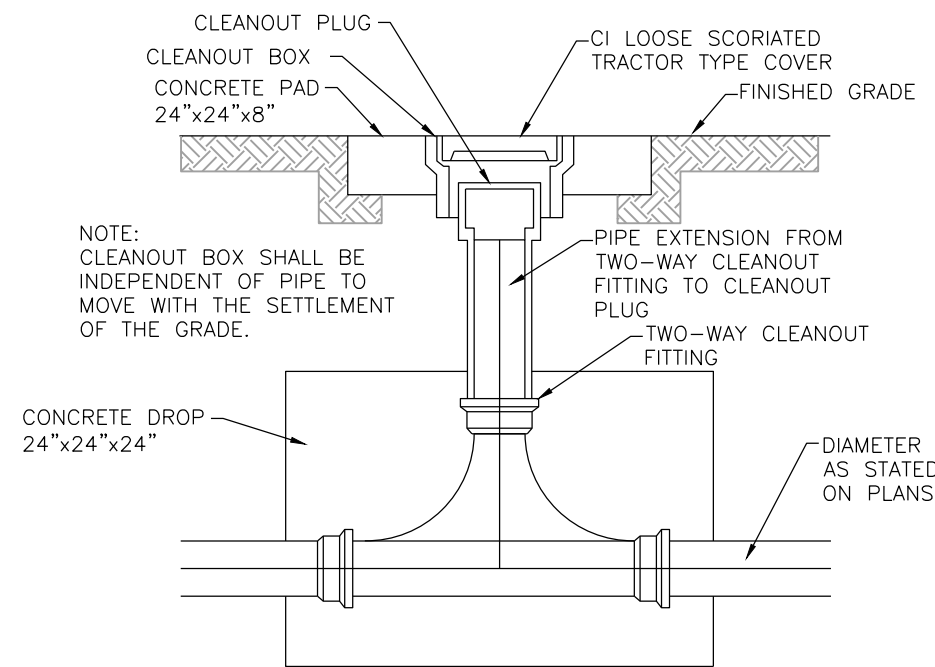
FLOW BLOCK TYPICAL LAYOUT

N.T.S.



SPLASH PAD DETAIL - DRAIN B

N.T.S.



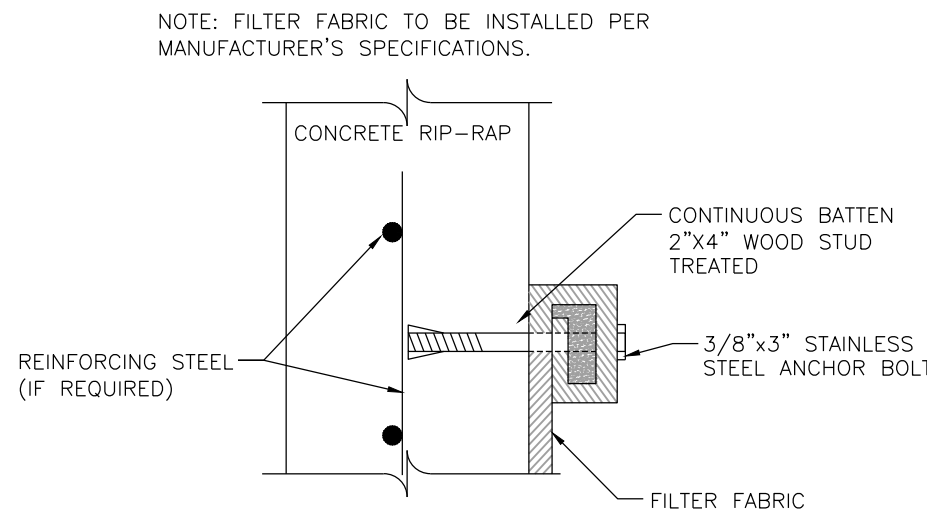
CLEANOUT DETAIL

(DUAL DIRECTION)
N.T.S.

CLAY LINER SPECIFICATIONS

Table 3-6 Clay Liner Specifications (COA, 2004)

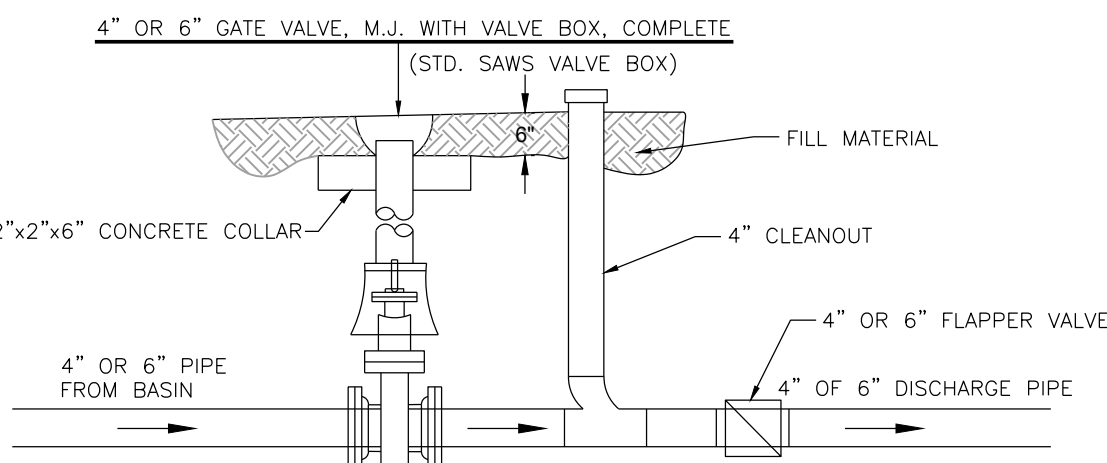
Property	Test Method	Unit	Specification
Permeability	ASTM D-2434	cm/sec	1×10^{-6}
Plasticity Index of Clay	ASTM D-423 & D-424	%	Not less than 15
Liquid Limit of Clay	ASTM D-2216	%	Not less than 30
Clay Particles Passing	ASTM D-422	%	Not less than 30
Clay Compaction	ASTM D-2216	%	95% of Standard Proctor Density



FILTER FABRIC ANCHORING DETAIL

N.T.S.

NOTE: CONTRACTOR TO PLACE ANCHOR BOLTS AT 5'-0" O.C.

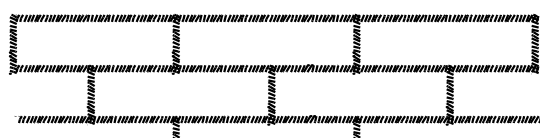


4" OR 6" GATE & FLAPPER VALVE DETAIL

N.T.S.

NOTES:

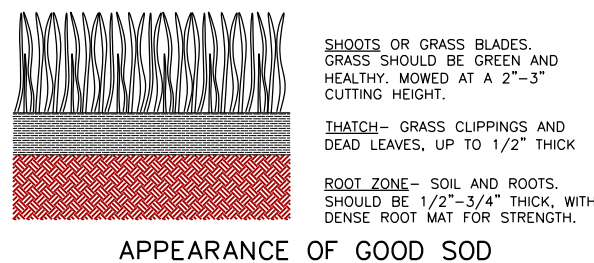
1. VALVE WILL BE SET PARTIALLY CLOSED SO AS TO PROVIDE A MINIMUM DRAWDOWN TIME OF 24 HOURS.
2. CONTRACTOR SHALL PROVIDE OWNER WITH VALVE OPERATING KEY/ROD PRIOR TO PROJECT COMPLETION.



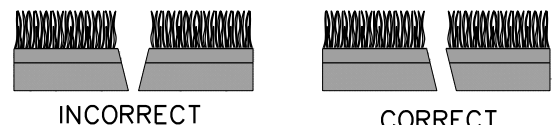
LAY SOD IN A STAGGERED PATTERN. BUTT THE STRIPS TIGHTLY AGAINST EACH OTHER. DO NOT LEAVE SPACES AND DO NOT OVERLAP. A SHARPENED MASON'S TROWEL IS A HANDY TOOL FOR TUCKING DOWN THE ENDS AND TRIMMING PIECES.

NOTES:

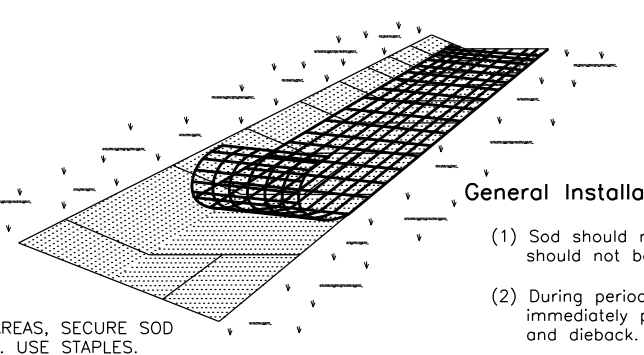
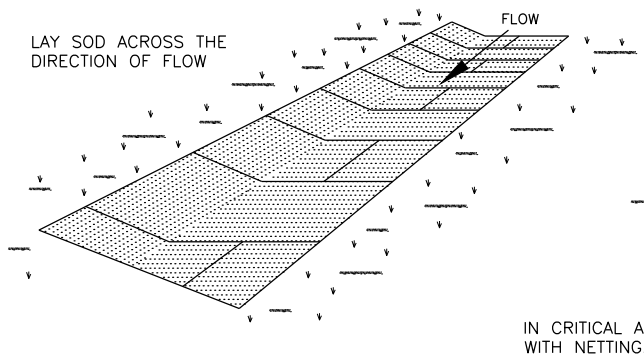
- ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL.
- WATER TO A DEPTH OF 4" AS NEEDED. WATER WELL AS SOON AS THE SOD IS LAID.
- MOW WHEN THE SOD IS ESTABLISHED - IN 2-3 WEEKS. SET THE MOWER HIGH (2"-3").



APPEARANCE OF GOOD SOD



SOD INSTALLATION



General Installation (VA Dept. of Conservation, 1992):

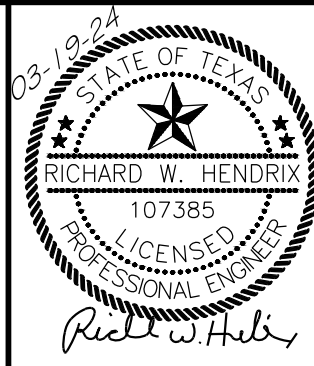
- (1) Sod should not be cut or laid in excessively wet or dry weather. Sod should not be laid on soil surfaces that are frozen.
- (2) During periods of high temperature, the soil should be lightly irrigated immediately prior to laying the sod, to cool the soil and reduce root burning and dieback.
- (3) The first row of sod should be laid in a straight line with subsequent rows placed parallel to and butting tightly against each other. Lateral joints should be staggered to promote more uniform growth and strength. Care should be exercised to ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause drying of the roots (see Figure above).
- (4) On slopes 3:1 or greater, or wherever erosion may be a problem, sod should be laid with staggered joints and secured by staking or other approved methods. Sod should be installed with the length perpendicular to the slope (on contour).
- (5) As sodding or clearly defined areas is completed, sod should be rolled or tamped to provide firm contact between roots and soil.
- (6) After rolling, sod should be irrigated to a depth sufficient that the underside of the sod pad and the soil 4 inches below the sod is thoroughly wet.
- (7) Until such time a good root system becomes developed, in the absence of adequate rainfall, watering should be performed as often as necessary to maintain moist soil to a depth of at least 4 inches.
- (8) The first mowing should not be attempted until the sod is firmly rooted, usually 2-3 weeks. Not more than one third of the grass leaf should be removed at any one cutting.

Inspection and Maintenance Guidelines:

- (1) Sod should be inspected weekly and after each rain event to locate and repair any damage.
- (2) Damage from storms or normal construction activities such as tire ruts or disturbance of seale stabilization should be repaired as soon as practical.

SOD INSTALLATION

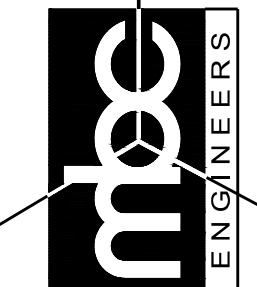
ISSUED FOR PERMIT
03-19-2024



PRIMARY CONTACT:
RICHARD HENDRIX, P.E.

MACINA • BOSE • COPELAND & ASSOC., INC.
CONSULTING ENGINEERS AND LAND SURVEYORS

1035 Central Parkway North, San Antonio, Texas 78232
(210) 545-1122 Fax (210) 545-9302 www.mbcengineers.com
FIRM REGISTRATION NUMBER: T.B.P.E. F-784 & T.B.P.L.S. 10011700



SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS

PRIVATE LID POND DETAILS 2

REVISIONS:	DATE	BY	DESCRIPTION
No.			

DESIGN	DATE	BY
DRAWN		
CHECKED		
DATE	01-11-2021	

JOB NO.

32653-BOERNE

C04.04

Certification – All of the components described below meet TCEQ's batch detention specifications for a 91% Total Suspended Solid removal rate. See attached logic flow chart for overview of system cycles.

- Valve – 6", cast iron, actuated by an electric motor
- Actuator – low voltage motor mounted on top of valve
- Extended bonnet (optional) – Cold rolled steel stem extension that connects valve to actuator when valve is used in subgrade applications, stainless steel flanges
- Main board – 24-volt panel that controls all aspects of batch control system
- Batteries – two 12-volt 35 amp/hr. sealed lead acid (SLA) connected in series
- Solar Panel – 24-volt 30-watt. One charge controller regulates solar panel power for batch control system.
- Sensor – mounted in the trash rack that indicates when water present in pond and when pond is empty
- Sensor 2 – position sensor on actuator – determines the orientation of the valve to control positions for start and stop

Controller Programming – All functions of the system are factory programmed which allows the control box, valve, and actuator to received and send commands on their own based on environmental conditions without any human interaction. Manual mode to override switch to open and close valve by flip of a switch and to test all components during inspections. Reset button to reset controller.

- Improper valve function
- Low battery
- Sensor 1 float switch inoperable

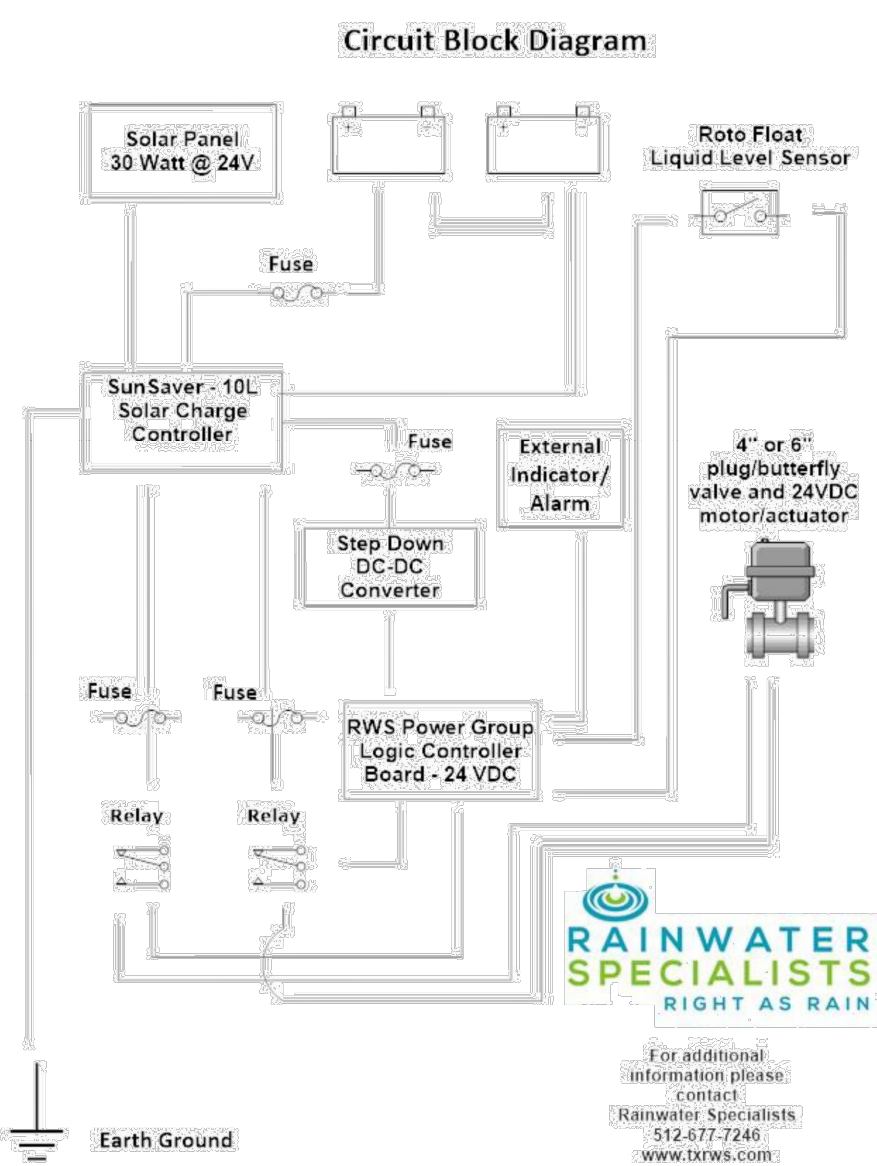
Manual Control - In case of electronic inoperability or failed actuator, an effortless clutchless handwheel on the actuator can be turned to open or close valve manually, easy-to-read position indicator displays open/closed valve position

Service Schedule:

- Batteries – Sealed lead acid batteries can have a design life of anywhere from 3-5 years. Many factors affect service life of the battery, temperature being ones of those factors. Recommended replacement is every 3-5 years. Batteries can be tested annually to determine remaining life expectancy. Battery terminals to be inspected annually.
- Solar Panel(s) - Solar panels last 25-30 years. Annual inspection of the batch detention system should verify the surface of the solar panel is clean, facing south, is secure, and has no debris/trees blocking panel from sun.

Quality Installation - Rainwater Specialists, LLC agrees to perform in a good and workmanlike manner. All work detailed in the detailed scope of work sheet shall guarantee the installation of all products and material according to manufacturer's written instructions and construction industry standards.

Item	Description	Manufacturer	Part #	Qty.
1	Enclosure - pole mounted battery enclosure, aluminum with stainless steel hinge system, 20" H x 16" W x 9" D	Solar Rackworks	ALG-64-01000	1
2	Solar Panel - 38 Watt, 24 Volts polycrystalline solar module with junction box	Solarland	SLP030-24U	1
3	Charge Controller - 24 Volt solar charge controller with LVD & <2.18% r.132	SunSaver	SS-10L-24V	1
4	Battery(UL12550)Group U1 12V 35 amp/h 7.68" x 5.5" x 4.14"	Universal Power Group	45976	2
5	Circuit Breaker - UL48R, 1 pole, 10 Amp	Siemens	5514120-TH4G0	3
6	Controller - microcontroller with smart and high-current relay outputs, continuous programming capabilities with 8 I/O point and 2 high current relay outputs for pilot light applications, 24VDC	RWA Power Group	PC6859001	1
7	Pilot Light - LED, full voltage, 30.5mm, NEMA 4/XX(13, 12-130V AC/DC, Red	Allen - Bradley	800M-QRH2R	1
8	Pilot Light - LED, full voltage, 30.5mm, NEMA 4/XX(13, 12-130V AC/DC, Green	Allen - Bradley	800M-QRH1G2	2
9	Relay - relay in-line style, blade terminals, 10 Amp contact, SPDT, 24VDC, LED light	Function Devices	RIBRL1C	1
10	Terminal Block - feed through, finger safe, 26-10awg, 41 Amp, 800Volts, Type U4T	McMaster-Carr	9473173	6
11	Fuse Terminal Block - feed through, finger safe, 26-10awg, 41 Amp, 800Volts, Type U4T	McMaster-Carr	955378	1
12	Ground Terminal Block, Finger Safe, 26-10awg, 41 Ground, 800Volts, Type U4T-PE	McMaster-Carr	9473173	1
13	Ground Bus Bar	Square D	PK7C7A	1
14	HOA Switch - Three Position Selector Switch, 30.5mm, NEMA 4/XX(13)	Siemens	50AA3C3	1
Instrumentation				
15	Float Switch - Inert-Float - Normally open, suspended type	Anchor Scientific	47734	1
16	Valve - 6" class 150 AWWA flanged butterfly valve, ductile iron body with epoxy coating, Precision machined 316 Stainless Steel disc, ASTM A162, Standard B8921-1 actuator to valve direct mounting	Valworex	567032A	1
17	Actuator - NEMA 4 Rating, 24 VDC, actuated to extended bottom to connect to valve, heavy duty hex key for manual/emergency operation, powder coated aluminum alloy	Valworex	567032A	1



RAINWATER SPECIALISTS LLC
15001 Crosscreek Dr.
Austin, TX 78733
www.rainwaterspecialists.com
512-677-RAIN

Batch Detention Pond Solar Specifications and Performance

System Power Consumption – 6.15 AH/day or ~75 wh/day average @ 8 valve turns maximum/week, sized for 5 days of autonomy

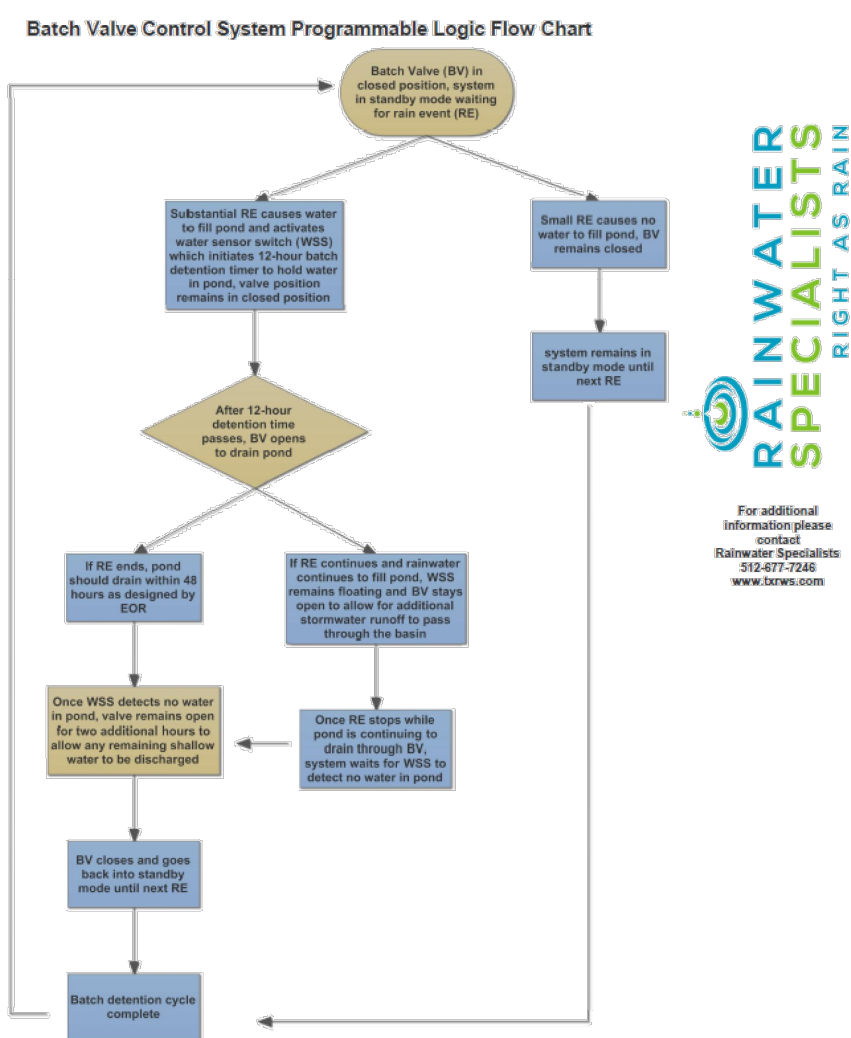
Control Board System – 24VDC PCB with error indication and remote cell output (optional)

Valve – 24 VDC @ 9 amps, one turn @ 16 seconds

Solar Panel – Solarlad 30 Watt, 24 Volts polycrystalline solar module with junction box. Vmp: 34.4V, Imp: 0.87A, Voc: 43.2V, Isc: 0.96A, 21.3" x 20.08" x 1.18", 8.27 lbs.

Charge controller – SunSaver 10 10 AMP, 24 Volt solar charge controller with LVD 6" x 2.18" x 1.32"

Batteries – Universal Power Group UB12350(Group U1) 12V 35 ampH 7.68" x 5.16" x 6.14" 23.15lbs



Valco® Electric Actuated Butterfly Valves

Ductile Iron Wafer Body ASME 150# 2" to 12" Pipe

Series 5670

Features

- Direct mount wafer butterfly valve with ISO5211 mount
- Epoxy coated ductile iron body with 316 SS disc
- Unique wafer line seal reduces torque and extends seal life
- Visual valve position indicator
- Rugged aluminum Type 4X weatherproof enclosure
- Heavy duty motors with overload protection
- Thermatically controlled anti-condensation heater
- Manual override with end of travel mechanical stops
- Two auxiliary position confirmation limit switches
- EPS - Electronic Positioning System models available
- Actuators CSA Listed per UL429 and CSA C22.2

Applications

EPDM seals typically used for on-off control of water and other media compatible with the materials of construction. Buna-N (NBR) seals typically used for air, oil, vacuum and other media compatible with the seal materials of construction. 200 standard alignment holes, suitable for flange-mounted actuators. Class 150/150, EN1092 PN10/PN16, BS10 Table D, E and AS B2338 10K 16K. Actuators designed for 70% duty cycle.

Operation

On-Off electric actuated valve uses power-to-open and power-to-close, stops in the last known position with seal lift. On receipt of a continuous voltage signal, the motor turns up and a rugged all metal gear system rotates the ball 90°. The motor is automatically stopped by its internal microprocessor limit switch. On receipt of a reversing continuous signal, the motor turns in the opposite direction reversing the valve position. Power connections direct to terminal strip via included cable con-ector, or optional 1/2" NPT conduit adaptors.

Construction

Valve Body	Epoxy coated ductile iron
Disc	316 stainless steel CF8M
Disc Seal-Liner	EPDM or NBR (Buna-N)
Stem/Stem Seal	420 stainless steel (2) virgin same material as seat
Gear Drive	Heavy duty alloy steel/aluminum bronze, self locking
Actuator Enclosure	Aluminum, powder coated painted, Type 4X, IP67
Visual Valve Position Indicator	Clear Polycarbonate cover, red/yellow open-closed
Fasteners	Stainless Steel
Auxiliary Limit Switches	2 x SPDT (SP1/25VAC), on-off actuators only

Accessories

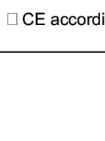
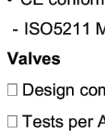
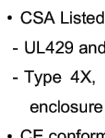
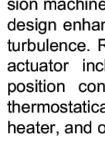
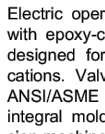
- CSA Listed to:
- UL429 and CSA C22.2 no 139
- Type 4X, IP67 weatherproof enclosure
- e-Comfidence
- ISO5211 Mounting

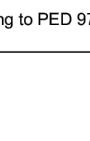
Valves

- Design complies with API-609, MSS SP-67
- Tests per API-598, ANSI C502-67
- e-Comfidence per PED 97/23/EC, ISO6058

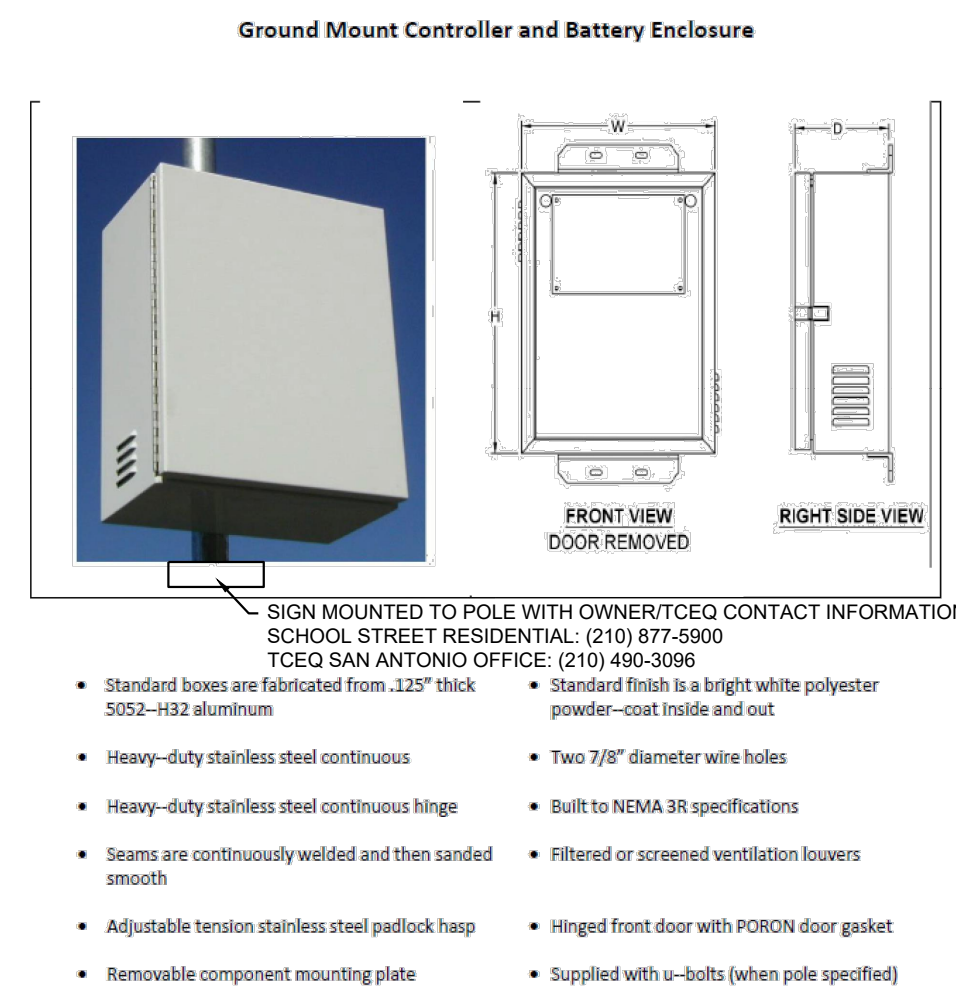
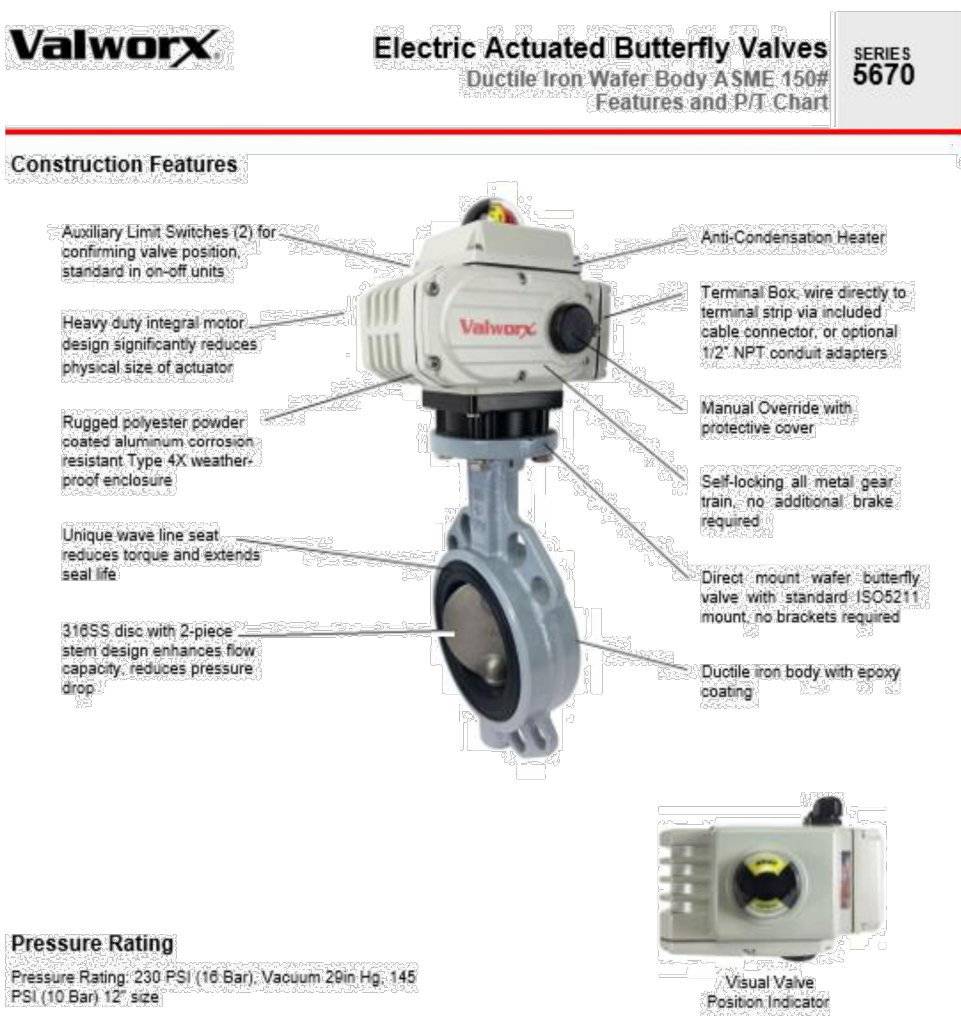
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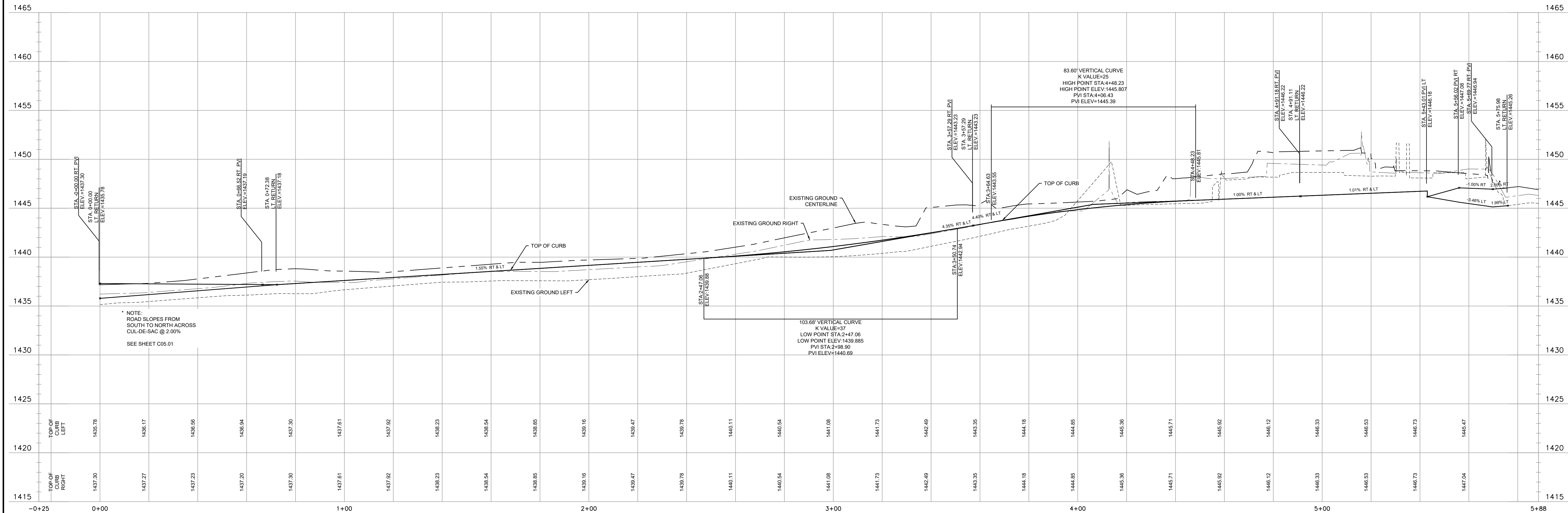
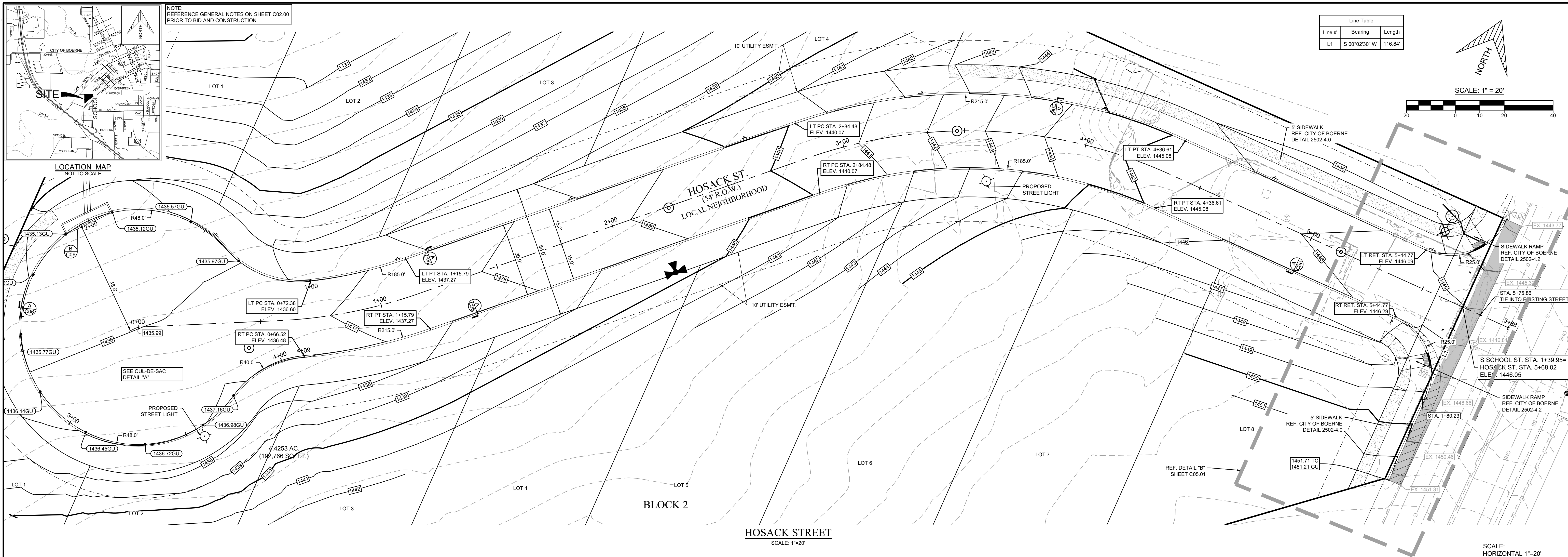
Electric operated ductile iron butterfly valve with epoxy-coated ductile iron wafer body and stainless steel disc designed for commercial and industrial applications. Valve models range from two standard ANSI/API, Class 150 flanged and isolated integral molded flange gaskets. Disc is precision machined 316SS. Two piece stem and disc design enhances the low capacity and reduces turbulence. Rugged corrosion-resistant enclosure includes a manual override, valve position confirmation switches (on-off unit only), thermatically controlled anti-condensation heater, and overload torque-protection.

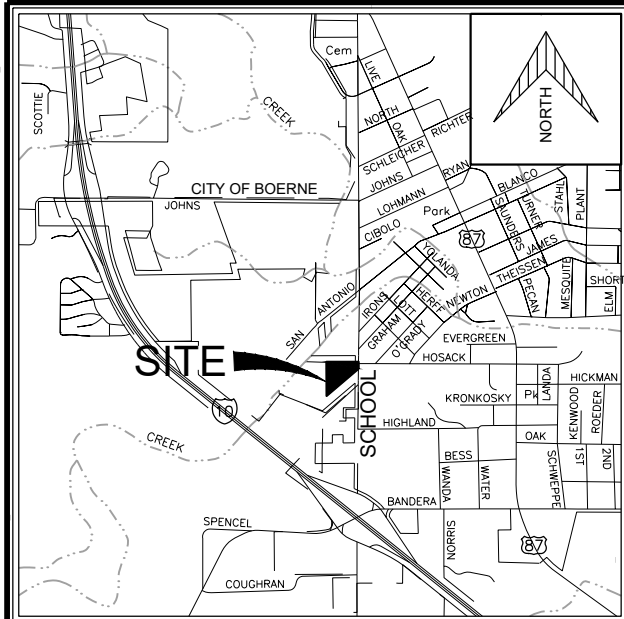




Doc: 5670.1121
Cornelius, N.J. • USA
www.valcovalves.com

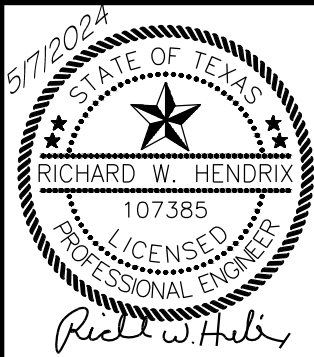
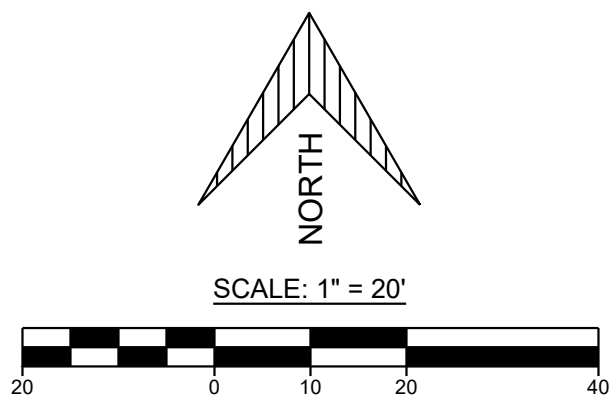
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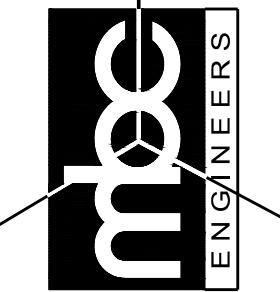
NOTE:
REFERENCE GENERAL NOTES ON SHEET C02.00
PRIOR TO BID AND CONSTRUCTION

Line Table		
Line #	Bearing	Length
L1	S 00°02'30" W	116.84'



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FIRM REGISTRATION NUMBER: T.B.P.E. F-784 & T.B.P.L.S. 10011700



SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
HOSACK STREET CUL-DE-SAC P&P

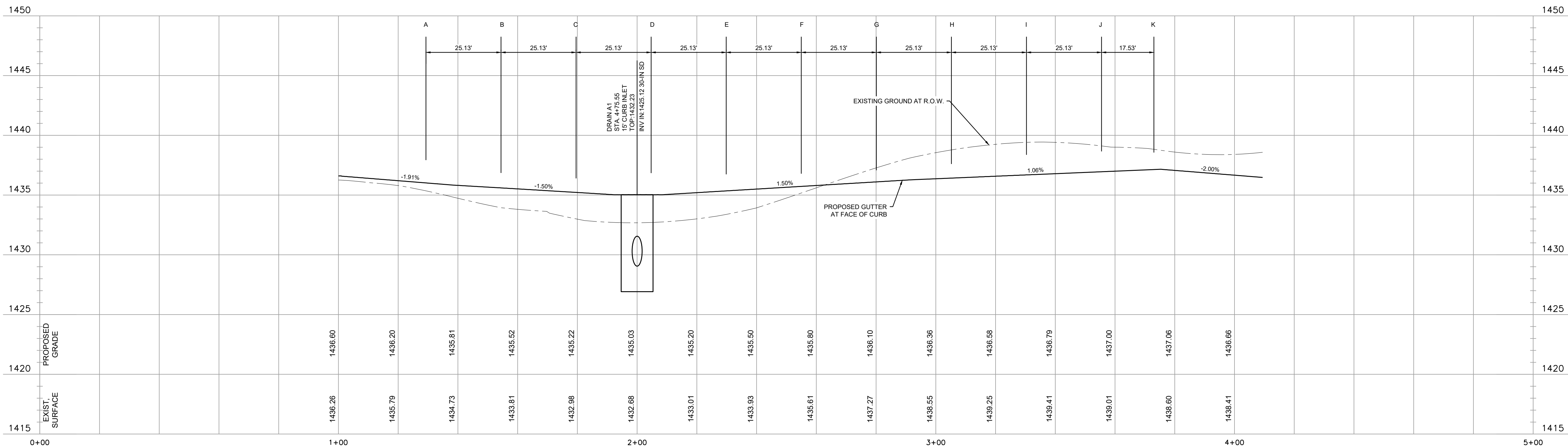
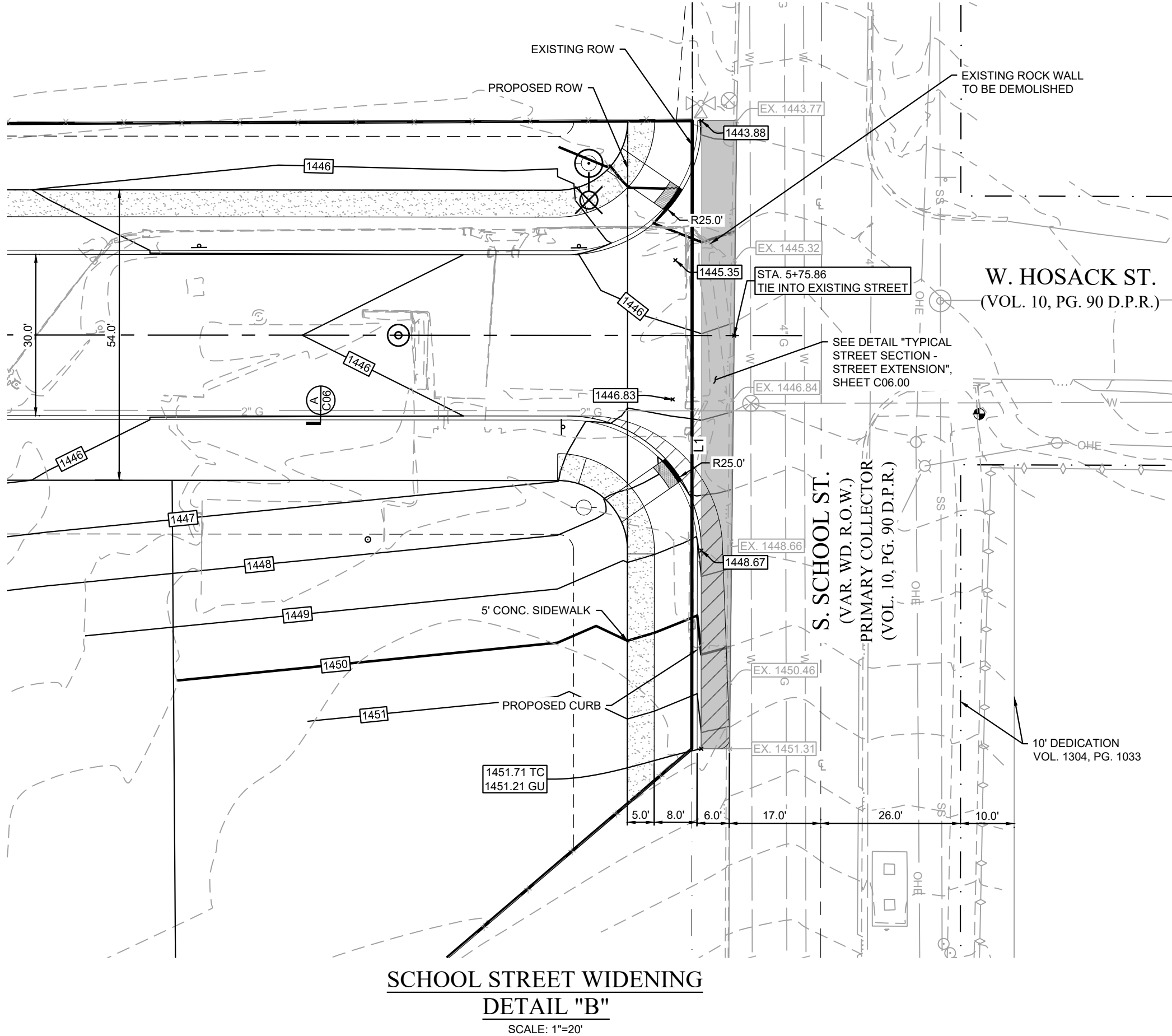
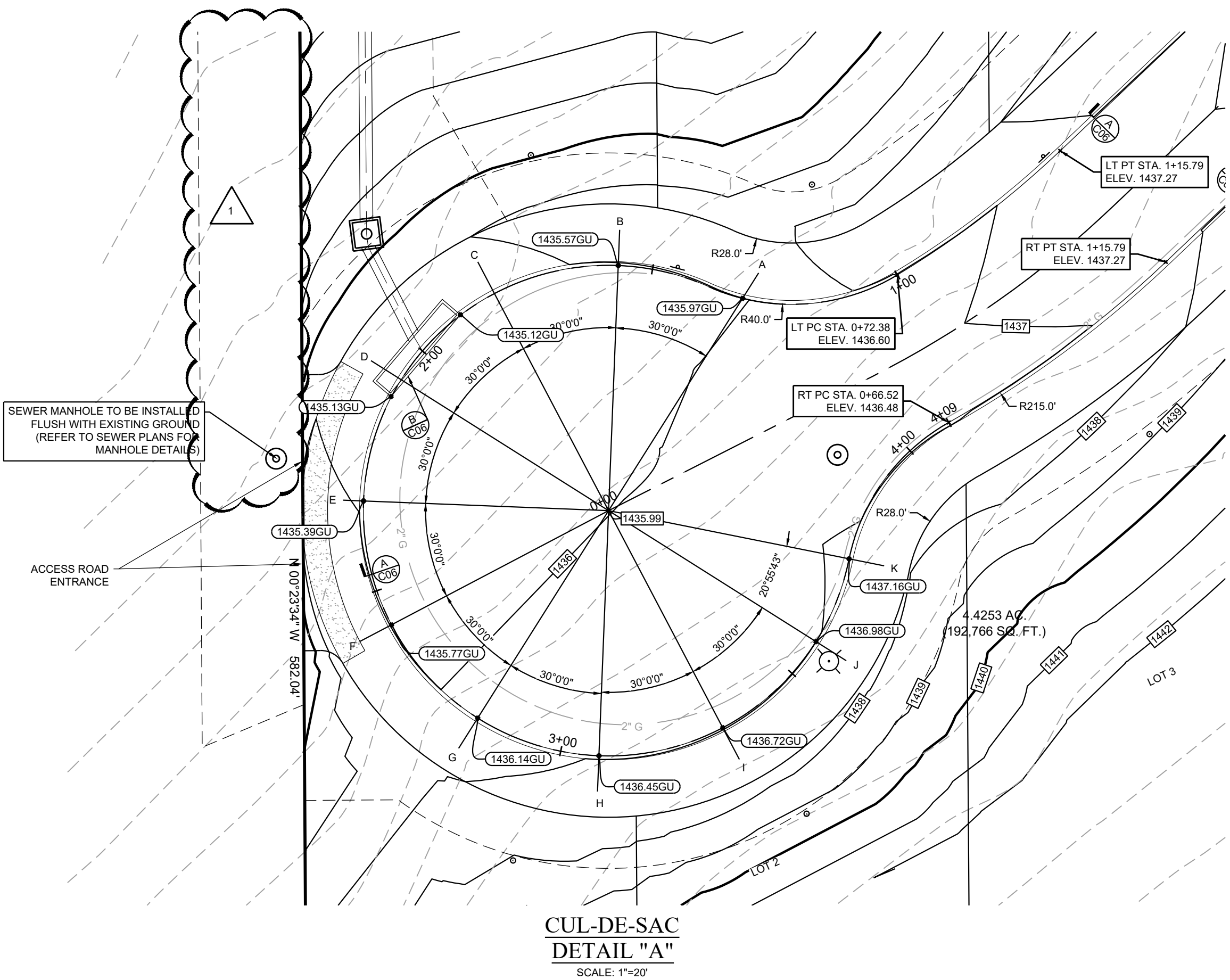
REVISIONS:	No.	DATE	DESCRIPTION	BY
	1	03/20/2024	EXTEND GRAVITY SEWER REMOVE LIFT STATION	RH
	2	05/07/2024	CITY SEWER COMMENTS	RWH

DESIGN	RH
DRAWN	RH
CHECKED	DLA
DATE	01-11-2021

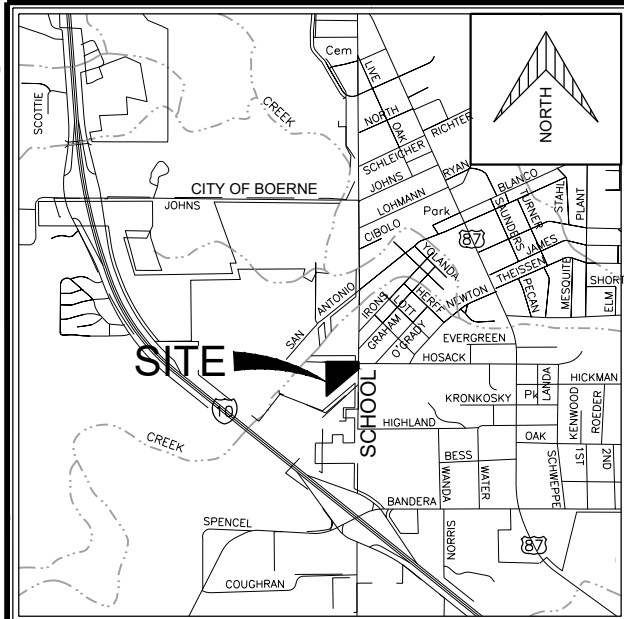
JOB NO.

32653-BOERNE

C05.01



ISSUED FOR PERMIT
05-07-2024



NOTE:
REFERENCE GENERAL NOTES ON SHEET C02.00
PRIOR TO BID AND CONSTRUCTION

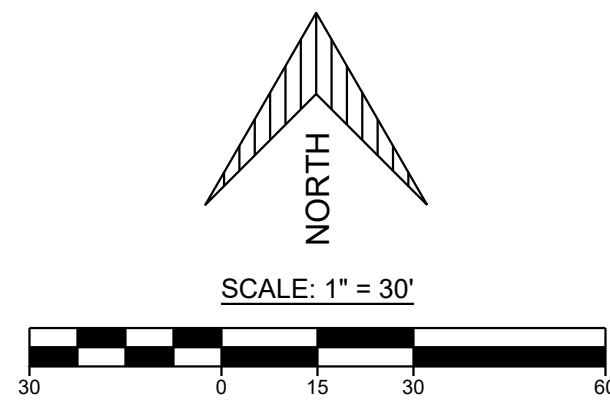
NOTE:
ALL ACCESSIBLE ROUTES SHALL HAVE A MAX CROSS SLOPE OF 2%. THE
ACCESSIBLE ROUTE SHALL NOT EXCEED 8.33% RUNNING SLOPE. HANDRAILS
SHALL BE INSTALLED ON RUNNING SLOPES GREATER THAN 5%.

ADA NOTE:
ALL SIDEWALKS, CURBS, RAMPS, AND DRIVE APPROACHES IN THE RIGHT OF
WAY SHALL BE IN COMPLIANCE WITH CURRENT TEXAS ACCESSIBILITY
STANDARDS (TAS) AND CITY OF BOERNE DESIGN STANDARDS PRIOR TO FINAL
INSPECTION APPROVAL.

STREET LIGHT NOTE:
STREET LIGHTS SHALL MEET FULL CUT-OFF CRITERIA (NO LIGHT OUTPUT
EMITTED ABOVE NINETY (90) DEGREES AT ANY LATERAL ANGLE AROUND THE
FIXTURE.

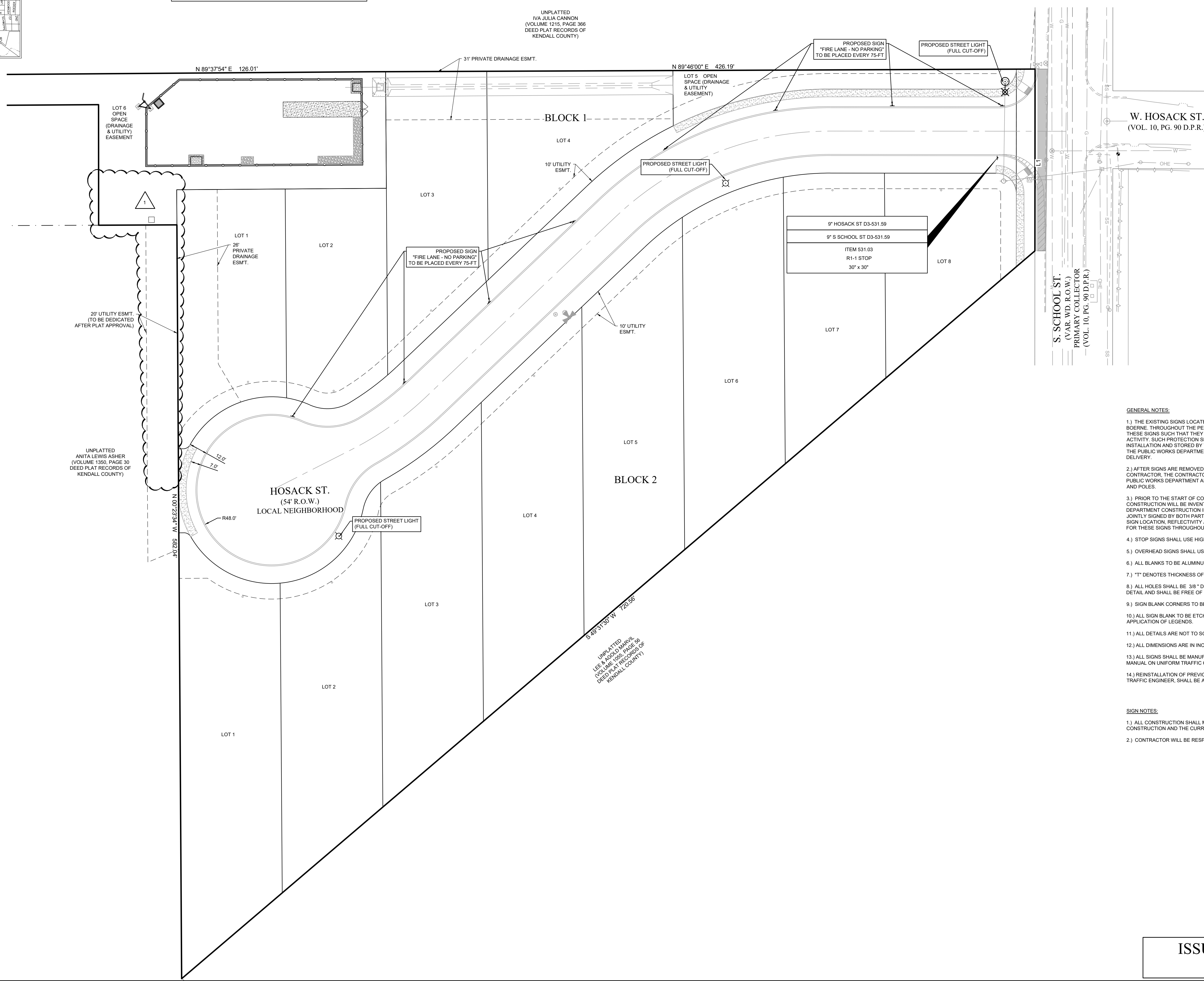
Line Table		
Line #	Bearing	Length
L1	S 00°02'30" W	116.84'

UNPLATTED
VIA JULIA CANNON
(VOLUME 1215, PAGE 368
DEED PLAT RECORDS OF
KENDALL COUNTY)



LEGEND

RIGHT OF WAY	—
LOT LINE	---
EASEMENT LINE	- - - -
SIGN	●
BARRICADE	○ ○ ○ ○ ○



GENERAL NOTES:

- 1.) THE EXISTING SIGNS LOCATED ON THE JOBSITE ARE THE PROPERTY OF THE CITY OF BOERNE. THROUGHOUT THE PERIOD OF THE CONTRACT, THE CONTRACTOR SHALL PROTECT THESE SIGNS SUCH THAT THEY ARE NOT DAMAGED IN THE COURSE OF CONSTRUCTION ACTIVITY. SUCH PROTECTION SHALL INCLUDE THE PERIOD AFTER SIGNS ARE REMOVED FROM INSTALLATION AND STORED BY THE CONTRACTOR OR DELIVERED TO TRAFFIC OPERATIONS. THE PUBLIC WORKS DEPARTMENT MUST BE NOTIFIED 48 HOURS IN ADVANCE PRIOR TO DELIVERY.
- 2.) AFTER SIGNS ARE REMOVED FROM INSTALLATION AND ARE BEING STORED BY THE CONTRACTOR, THE CONTRACTOR SHALL CONTACT THE TRAFFIC OPERATIONS SECTION OF THE PUBLIC WORKS DEPARTMENT AND ARRANGE FOR A CONVENIENT TIME TO DELIVER CITY SIGNS AND POLES.
- 3.) PRIOR TO THE START OF CONSTRUCTION, ALL EXISTING SIGNS WITHIN THE AREA OF CONSTRUCTION WILL BE INVENTORIED AND DOCUMENTED JOINTLY BY THE PUBLIC WORKS DEPARTMENT CONSTRUCTION INSPECTION AND THE CONTRACTOR. THIS DOCUMENT WILL BE JOINTLY SIGNED BY BOTH PARTIES REFLECTING THE SIGN TYPE, SIGN SIZE, SIGN CONDITION, SIGN LOCATION, REFLECTIVITY ADEQUACY, ETC. THE CONTRACTOR IS HELD ACCOUNTABLE FOR THESE SIGNS THROUGHOUT THE PROJECT AND AT THE PROJECTS COMPLETION.
- 4.) STOP SIGNS SHALL USE HIGH INTENSITY REFLECTIVE SHEETING.
- 5.) OVERHEAD SIGNS SHALL USE HIGH INTENSITY REFLECTIVE SHEETING.
- 6.) ALL BLANKS TO BE ALUMINUM ALLOY NO. 5052-H38.
- 7.) "T" DENOTES THICKNESS OF SIGN BLANKS.
- 8.) ALL HOLES SHALL BE 3/8" DIAMETER DRILLED OR PUNCHED AS SHOWN ON EACH BLANK DETAIL AND SHALL BE FREE OF BURRS AND/OR ROUGH EDGES.
- 9.) SIGN BLANK CORNERS TO BE ROUNDED AS SHOWN ON EACH DETAIL.
- 10.) ALL SIGN BLANK TO BE ETCHED, DEGREASED, AND HAVE AN ALODINE FINISH PRIOR TO APPLICATION OF LEGENDS.
- 11.) ALL DETAILS ARE NOT TO SCALE.
- 12.) ALL DIMENSIONS ARE IN INCHES.
- 13.) ALL SIGNS SHALL BE MANUFACTURED AND INSTALLED IN CONFORMANCE TO THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- 14.) REINSTALLATION OF PREVIOUSLY EXISTING SIGNS, WHERE REQUIRED BY THE CITY TRAFFIC ENGINEER, SHALL BE AT THE CONTRACTORS EXPENSE.

SIGN NOTES:

- 1.) ALL CONSTRUCTION SHALL MEET CITY OF BOERNE STANDARDS FOR PUBLIC WORKS CONSTRUCTION AND THE CURRENT TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
- 2.) CONTRACTOR WILL BE RESPONSIBLE FOR ALL INSPECTIONS FOR SIGN INSTALLATION.

ISSUED FOR PERMIT
05-07-2024

5/7/2024
STATE OF TEXAS
RICHARD W. HENDRIX
107385
LICENSED PROFESSIONAL ENGINEER
Richard Hendrix

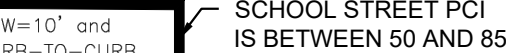
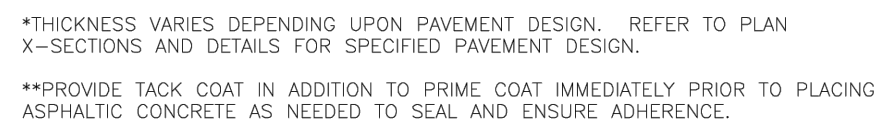
PRIMARY CONTACT:
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FIRM REGISTRATION NUMBER: T.B.P.E. F-784 & T.B.P.L.S. 10011700

mbc
ENGINEERS

SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
SIGNAGE PLAN

REVISIONS:	No.	DATE	DESCRIPTION	BY
	1	03/20/2024	EXTEND GRAVITY SEWER REMOVE LIFT STATION	RWH
	2	05/07/2024	CITY SEWER COMMENTS	RWH

PLAT ID# -
DESIGN - RH
DRAWN - RH
CHECKED - DLA
DATE - 01-11-2021
JOB NO.
32653-BOERNE
C05.02



LOCAL NEIGHBORHOOD STREET

SCHOOL STREET

LOCAL NEIGHBORHOOD STREET

SCALE: N.T.S.	DRAWING No. 02513-1.0	DATE: JULY 2015
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SCALE: N T S	DRAWING No. 02513-1 1	DATE: JULY 2015
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- GEOTECH NOTES**
1. CONTRACTOR TO REFERENCE GEOTECH REPORT PREPARED BY MUELLER ENGINEERING, JOB # 2220110001, DATED JANUARY 2002 FOR GEOTECHNICAL PAVING AND SUBGRADE DETAILS.
 2. ALL EXISTING PAVEMENT (AGGREGATE BASE, GEORGD AND ASPHALT) SECTIONS SHALL BE REMOVED AND REPLACED PER GEOTECHNICAL RECOMMENDATIONS AND DETAILS.
 3. SUBGRADE MATERIAL SHALL BE COMPACTED TO 95% DENSITY.
 4. PAVEMENT REPAIR SHALL EXTEND A MINIMUM OF 2-FOOT DEPTH TO THE DISTRESSED ASPHALT AREA.
 5. ALL EXISTING SUBGRADE AND PAVEMENT GRADES TO ENSURE PROPER STREET DRAINAGE AND PREVENT WATER FROM PONDING IN THESE AREAS.
 6. JOINTS SHALL BE SEALED TO PREVENT MOISTURE FROM GETTING UNDERNEATH THE ASPHALT.
 7. BACK OF CURBS SHOULD BE BACKFILLED WITH CLAYS.
 8. CONTRACTOR SHALL PROVIDE DETERAVERS AS NECESSARY TO PREVENT WATER FROM ENTERING THE REPAIR AS TO NOT ALLOW BASE OR SUBGRADE TO BECOME WET.
 9. CONTRACTOR TO REFERENCE CITY GEOTECHNICAL TESTING REQUIREMENTS FOR PAVING. COORDINATE WITH CITY INSPECTOR AS NECESSARY.



12' ACCESS ROAD

B CURB INLET DETAIL

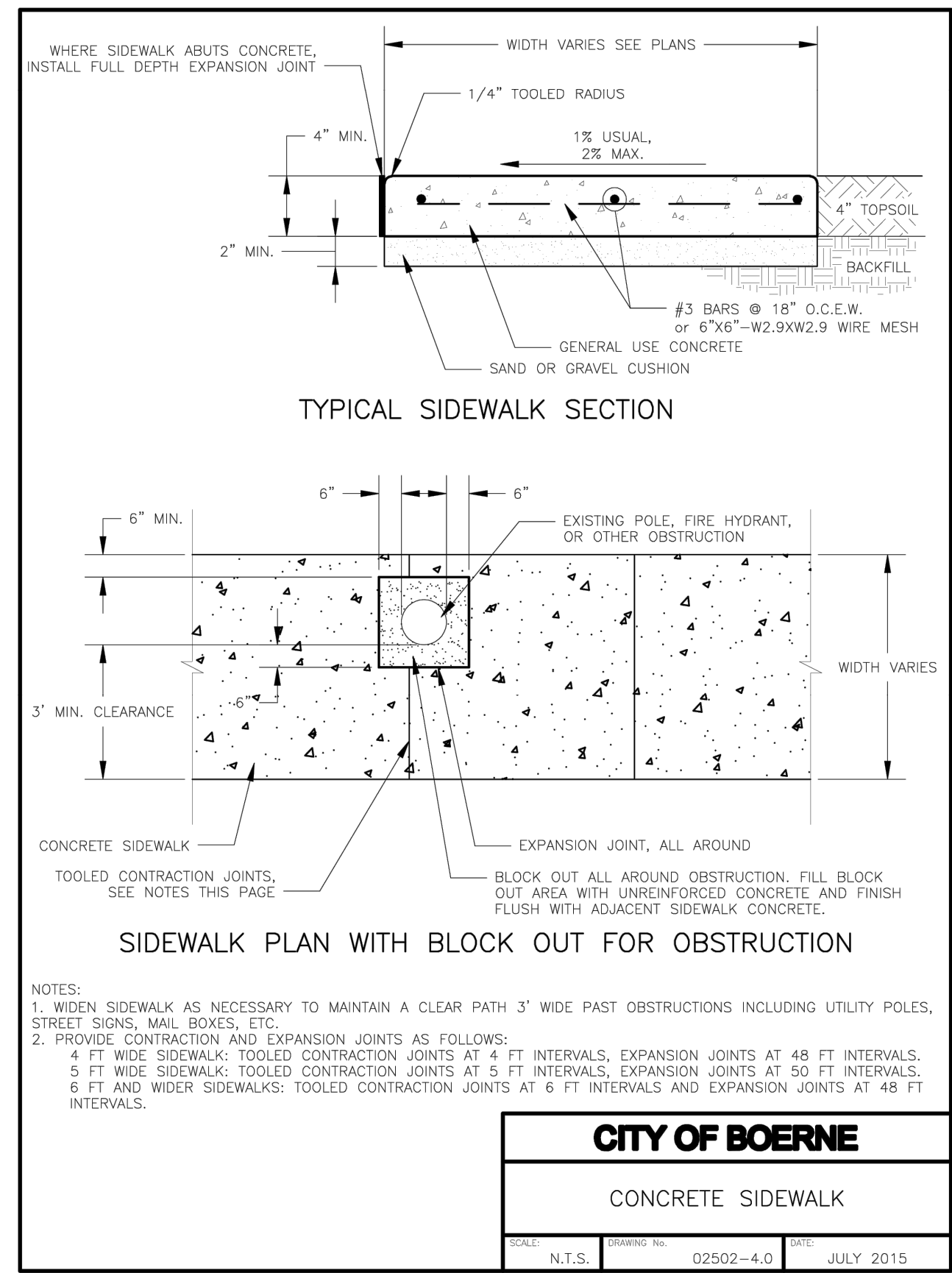
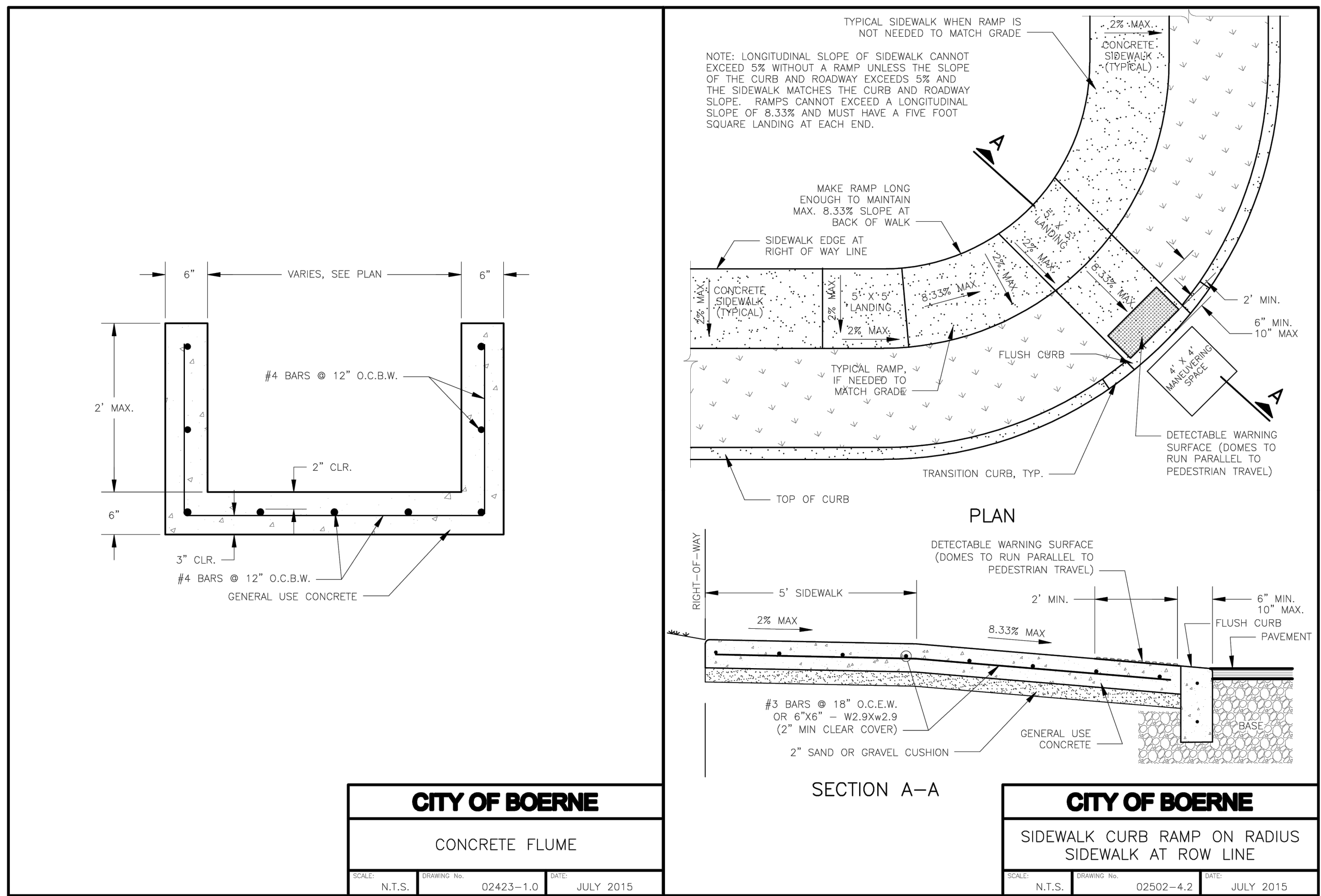
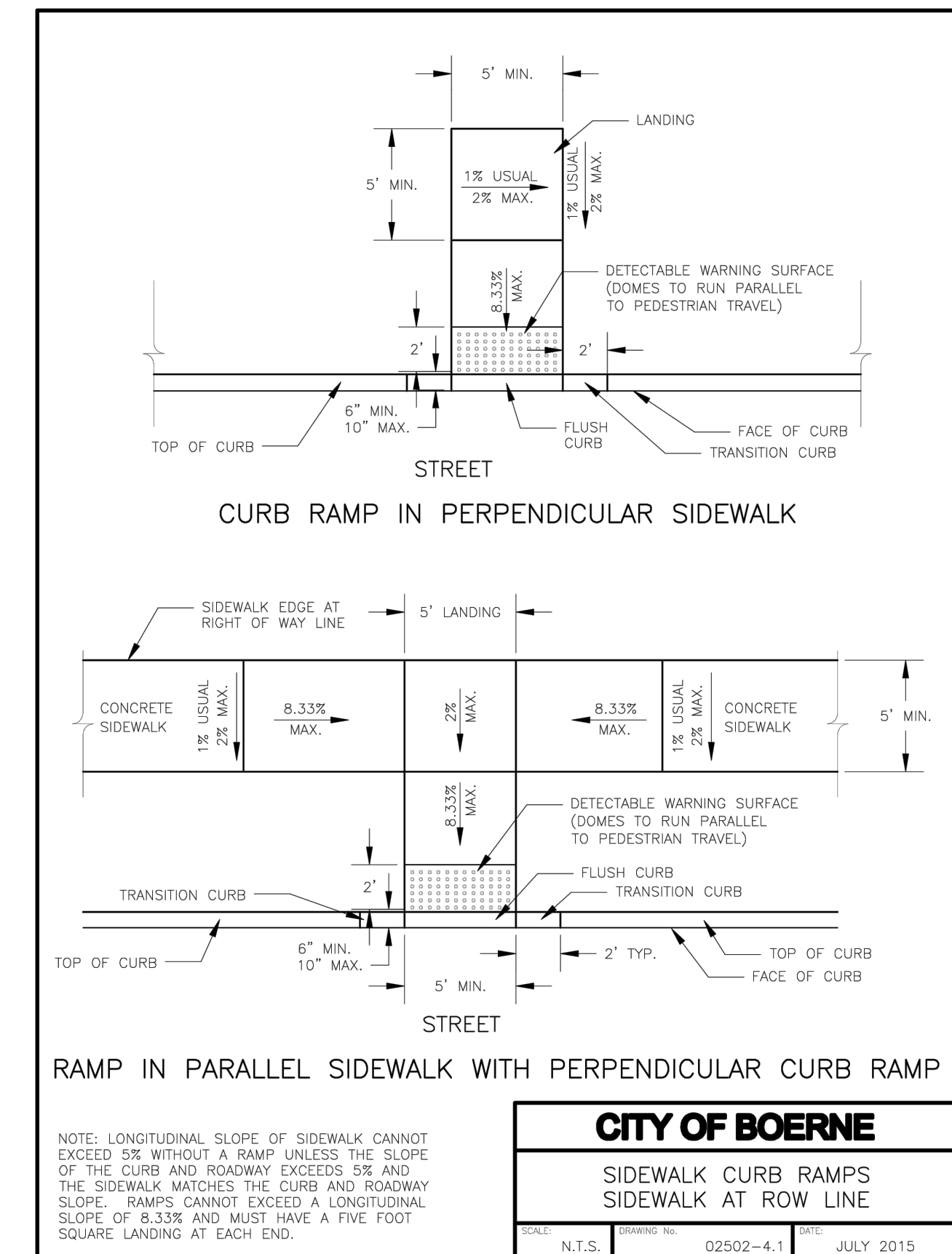
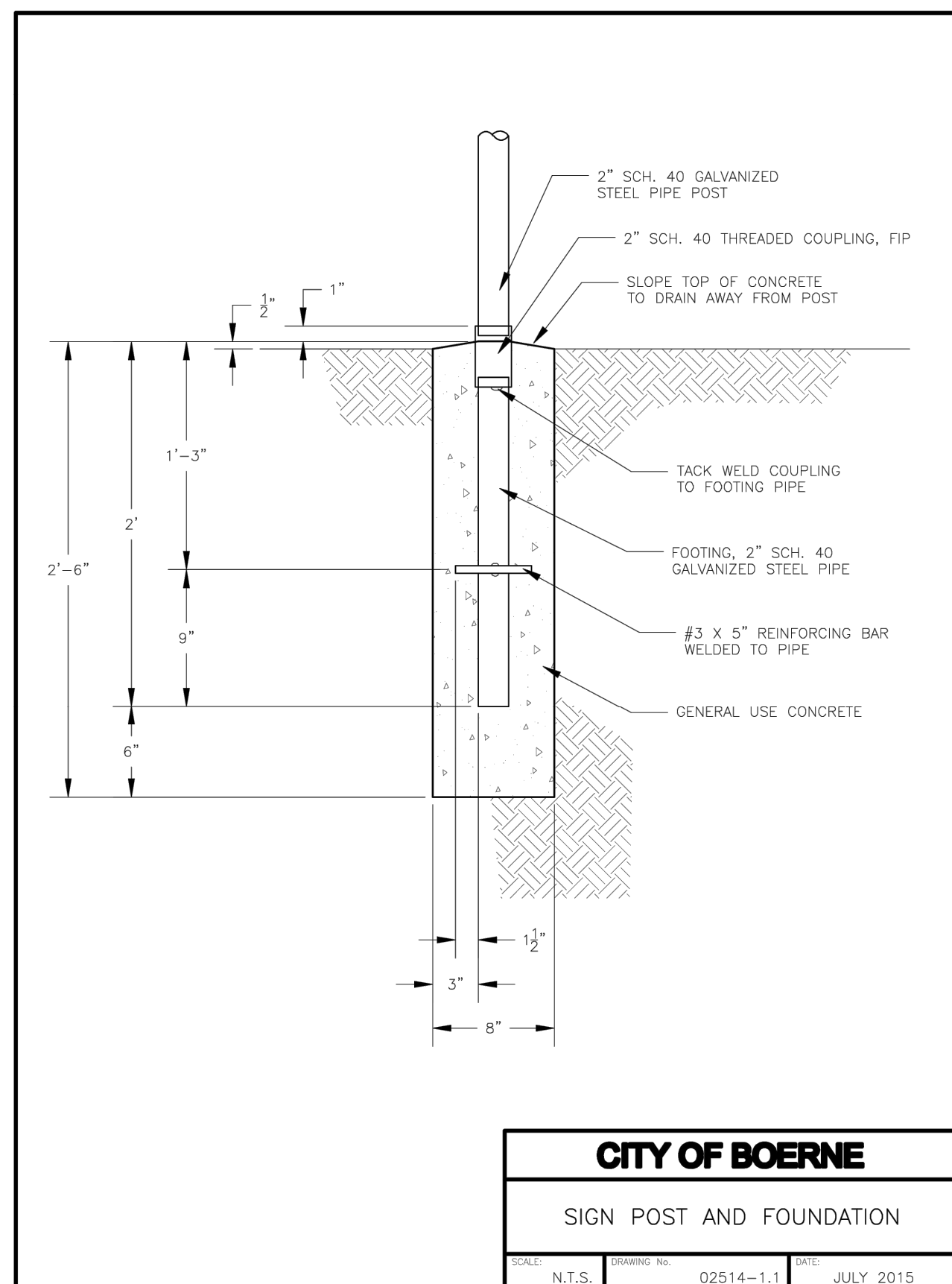
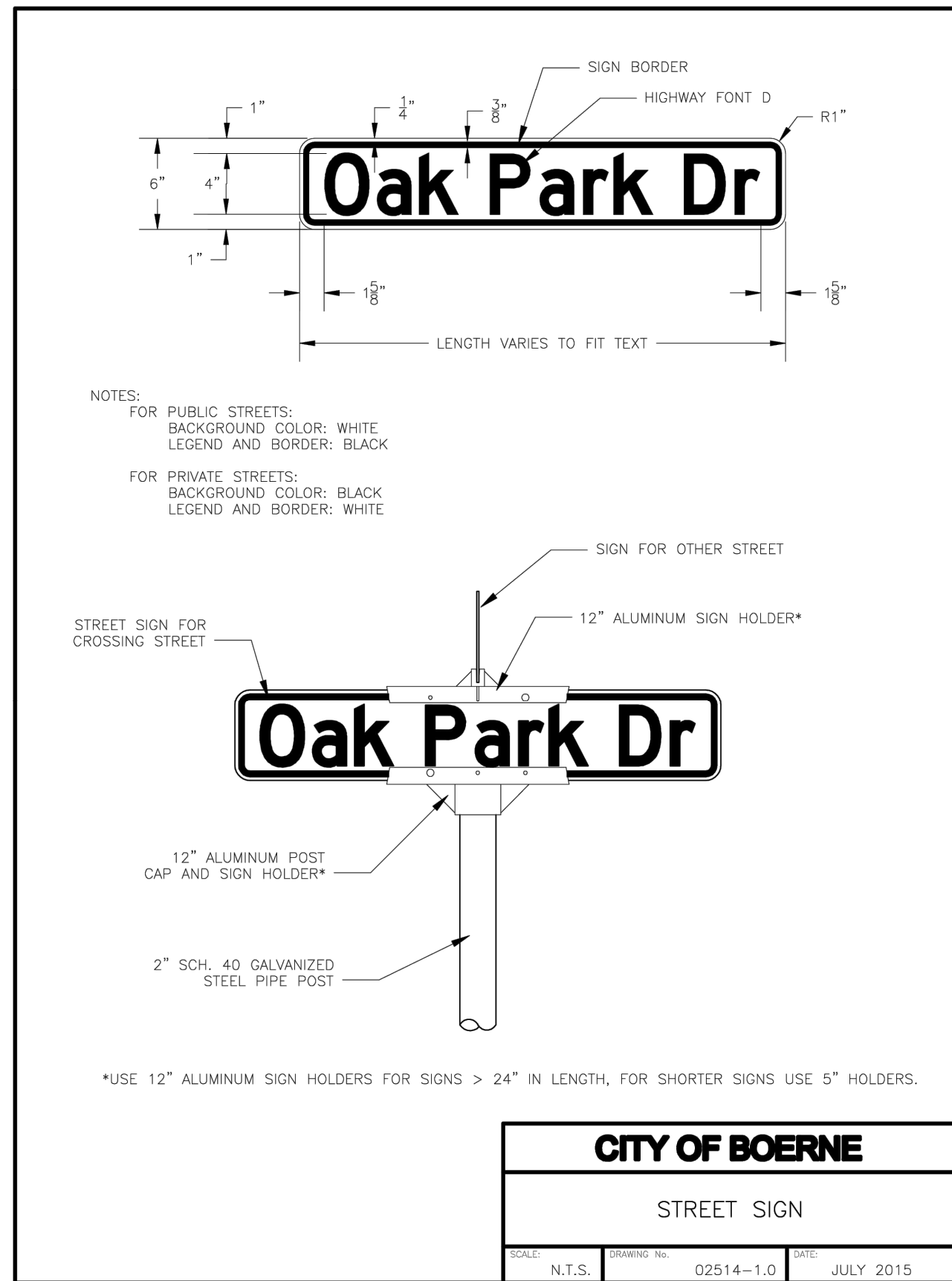
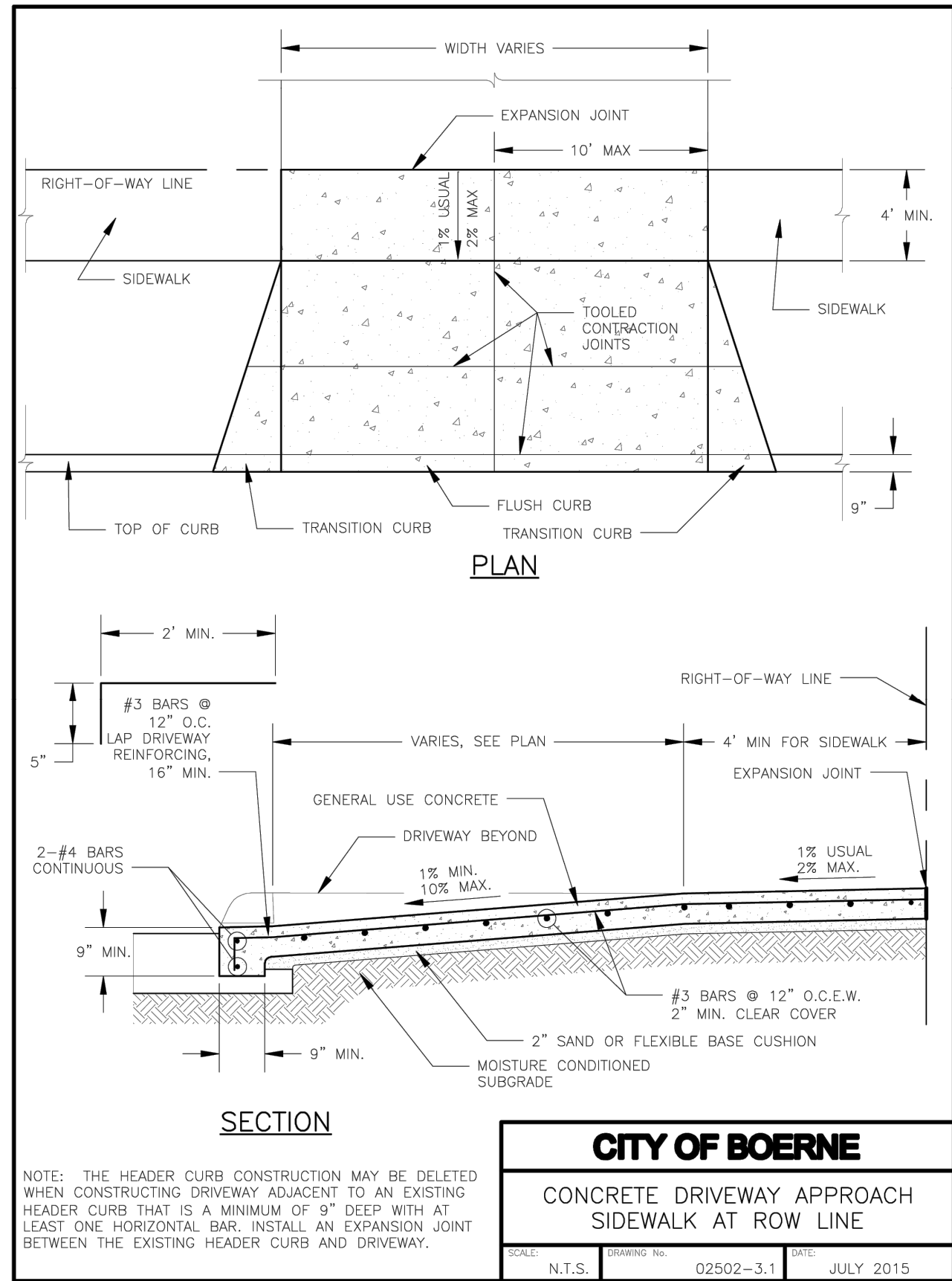


SCALE: N.T.S.	DRAWING No. 02502-2.0	DATE: JULY 2015
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SCALE: N.T.S.	DRAWING No. 02502-2.1	DATE: JULY 2015
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ISSUED FOR PERMIT
03-19-2024

Date: Mar 19, 2024, 11:04am User ID: lgorcalaz Layout: STREET DETAILS 2
File: P:\Boerne\32653-502 S School St\Design\Details\32653.dwg Layout name: STREET DETAILS 2



02/19/24
STATE OF TEXAS
RICHARD W. HENDRIX
107385
LICENSED PROFESSIONAL ENGINEER
Richard Hendrix

PRIMARY CONTACT:
RICHARD HENDRIX, P.E.

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CONSULTING ENGINEERS AND LAND SURVEYORS
1035 Central Parkway North, San Antonio, Texas 78232
(210) 545-1122 Fax (210) 545-9302 www.mcbengineering.com
FIRM REGISTRATION NUMBER: T.B.P.E. F-784 & T.B.P.L.S. 10011700

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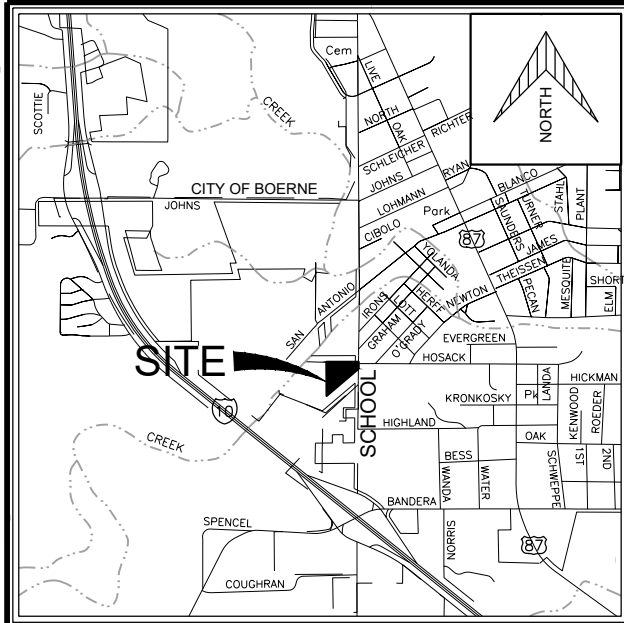
SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
STREET DETAILS 2

REVISIONS:	DATE	BY	DESCRIPTION
No.			

PLAT ID# _____
DESIGN _____ RH _____
DRAWN _____ RH _____
CHECKED _____ DLA _____
DATE _____ 01-11-2021 _____
JOB NO. _____
32653-BOERNE
C06.01

ISSUED FOR PERMIT
03-19-2024

Date: May 07, 2024, 3:26pm User: ID: rhendrix Layout: FIRE PROTECTION SITE PLAN
File: P:\Boerne\32653-502 S School St\Design\Design Civil\Fire protection site plan-32653.dwg Layout name: FIRE PROTECTION SITE PLAN

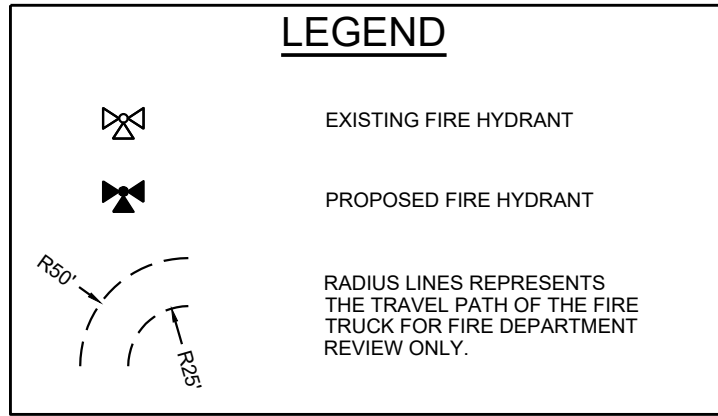
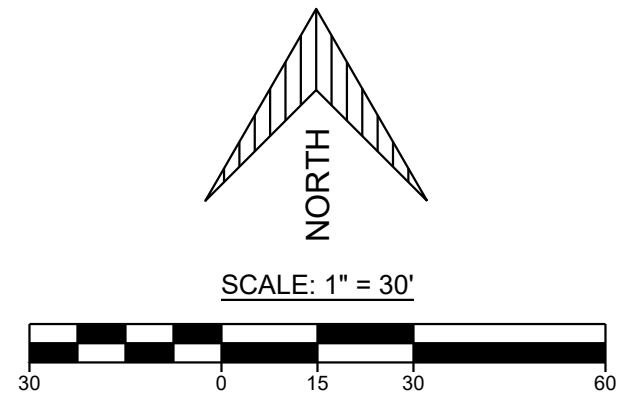


NOTE:
REFERENCE GENERAL NOTES ON SHEET C02.00
PRIOR TO BID AND CONSTRUCTION

- ADDITIONAL FIRE HYDRANTS:
- ±300' EAST OF THE SITE LOCATED ALONG THE SOUTH RIGHT-OF-WAY LINE OF W HOSACK STREET AT SOUTHWEST CORNER OF 0' GRADY STREET INTERSECTION.
 - ±450' SOUTH OF THE SITE LOCATED ALONG THE WEST RIGHT-OF-WAY LINE OF S SCHOOL STREET.
 - ±1,000' SOUTH OF THE SITE LOCATED AT THE NORTHEAST CORNER OF W HIGHLAND AND S SCHOOL STREET.

NOTE:
CONTRACTOR TO COORDINATE WITH FIRE MARSHAL'S OFFICE AT BEGINNING OF CONSTRUCTION TO DETERMINE NUMBER AND LOCATION OF REQUIRED FIRE RELATED SIGNAGE INCLUDE THIS COST WITH BIDS.

Line Table		
Line #	Bearing	Length
L1	S 00°02'30" W	116.84'



5/7/2024
STATE OF TEXAS
RICHARD W. HENDRIX
107385
LICENSED PROFESSIONAL ENGINEER
Richard W. Hendrix

PRIMARY CONTACT:
RICHARD HENDRIX, P.E.

MACINA • BOSE • COPELAND & ASSOC., INC.
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SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
FIRE PROTECTION SITE PLAN

REVISIONS:	No.	DATE	DESCRIPTION	BY
	1	03/20/2024	EXTEND GRAVITY SEWER REMOVE LIFT STATION	RWH
	2	05/07/2024	CITY SEWER COMMENTS	RWH

PLAT ID# -
DESIGN - RH
DRAWN - RH
CHECKED - DLA
DATE - 01-11-2021

JOB NO.
32653-BOERNE
C07.00

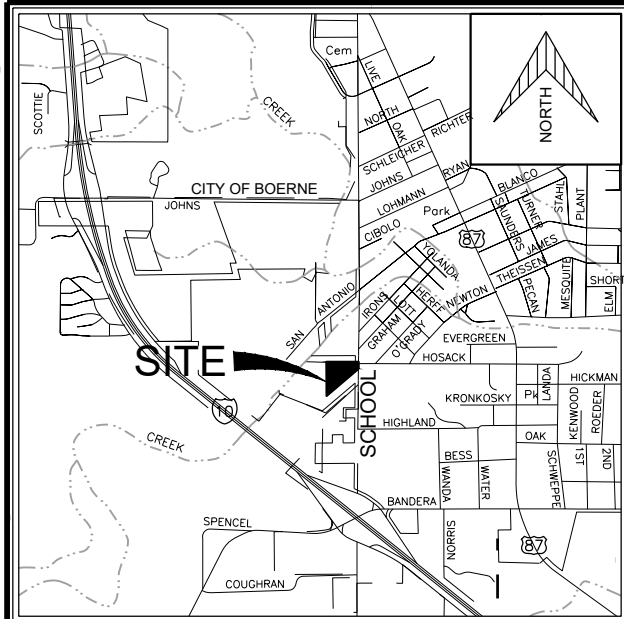
SIGNAGE INDICATING "FIRE LANE NO PARKING" SHALL BE SPACED AT A MAXIMUM OF 75 FEET APART, ALONG THE LENGTH OF THE FIRE LANE. SIGNS SHALL COMPLY WITH THE INTERNATIONAL FIRE CODE, 2009 APPENDIX D FIGURE D103.6 AND BOERNE LATEST FIRE PREVENTION AND PROTECTION ORDINANCE.

NO PARKING
FIRE LANE
→

NO PARKING
FIRE LANE
←

NO PARKING
FIRE LANE

ISSUED FOR PERMIT
05-07-2024



NOTE:
REFERENCE GENERAL NOTES ON SHEET C02.00
PRIOR TO BID AND CONSTRUCTION

TRENCH EXCAVATION SAFETY PROTECTION
CONTRACTOR AND/OR CONTRACTORS INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL RESISTING/GEOTECHNICAL SAFETY EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTORS' TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTORS' IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTORS INDEPENDENTLY RETAINED EMPLOYED OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY PLAN AND CONSIDER EXISTING AND PROPOSED DRAINAGE PATTERNS DURING THE CONSTRUCTION OF THE PROJECT. IN ORDER TO ACCOMPLISH THIS, IT MAY BE NECESSARY TO PHASE THE GRADING, CONSTRUCT TEMPORARY BERMS AND SWALES WHILE FACTORING IN SURROUNDING CONDITIONS TO PROPERLY DIRECT AND CONTROL SURFACE RUNOFF. ADDITIONALLY, THE CONTRACTOR SHOULD TAKE INTO ACCOUNT THE TIMING OF CONSTRUCTING PONDS, CHANNELS AND STORM DRAINAGE SYSTEMS.

NOTE:
ALL ACCESSIBLE ROUTES SHALL HAVE A MAX CROSS SLOPE OF 2%. THE ACCESSIBLE ROUTE SHALL NOT EXCEED 8.33% RUNNING SLOPE. HANDRAILS SHALL BE INSTALLED ON RUNNING SLOPES GREATER THAN 5%.

ADA NOTE:
ALL SIDEWALKS, CURBS, RAMPS, AND DRIVE APPROACHES IN THE RIGHT OF WAY SHALL BE IN COMPLIANCE WITH CURRENT TEXAS ACCESSIBILITY STANDARDS (TAS) AND CITY OF BOERNE DESIGN STANDARDS PRIOR TO FINAL INSPECTION APPROVAL.

NOTE:
RE-VEGETATE ALL DISTURBED AREAS. NATIVE, NONINVASIVE TURF GRASSES (NOT BUNCH GRASSES) SHOULD BE PLANTED AND MAINTAINED AT A MINIMUM HEIGHT OF 4 INCHES. CONTRACTOR IS RESPONSIBLE FOR TEMPORARY IRRIGATION AND/OR WATERING UNTIL 85% GROWTH HAS BEEN ESTABLISHED.

TREE NOTE:
APPROVED TREE REMOVAL PERMIT IS REQUIRED PRIOR TO THE REMOVAL OF ANY TREES.

DRAINAGE SWALE NOTES:
1. ALL DRAINAGE SWALES SHALL BE AN ABSOLUTE MINIMUM OF 1% SLOPE.
2. PER FHA CRITERIA, THE PROTECTIVE DRAINAGE SWALES ADJACENT TO THE HOUSE (AND DENOTED BY FLOW ARROWS HERE-ON) MUST AT ALL POINTS COLLECTING APPRECIABLE RUNOFF BE AT LEAST 1.2 VERTICAL FEET BELOW THE FINISHED FLOOR ELEVATION.
3. ELEVATION OF FINISHED GROUND AT SLAB SHALL BE A MINIMUM OF 8 INCHES BELOW FINISH FLOOR ELEVATION.
4. BUILDER NEEDS TO TAKE SPECIAL CARE TO CONSTRUCT DRAINAGE SWALE ON ALL LOTS SO THAT RUNOFF WILL BE INTERCEPTED AT SIDE LOT LINE AND CARRIED TO STREET.

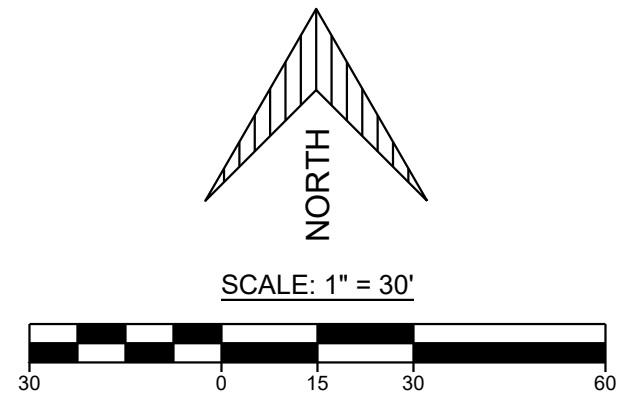
Line Table		
Line #	Bearing	Length
L1	S 00°02'30" W	116.84'

BENCHMARK #1
DESCRIPTION
CHISELED SQUARE ON CURB ALONG W HOSACK STREET.

ELEVATION = 1447.40
NOTE:
PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR IS TO VERIFY THE BENCHMARK DEPICTED ON THIS DRAWING AND REPORT ANY DISCREPANCIES IN THE ELEVATION OR DESCRIPTION TO THE CIVIL ENGINEER IMMEDIATELY.

BENCHMARK #2
DESCRIPTION
CHISELED SQUARE ON SIDEWALK ALONG S SCHOOL STREET.

ELEVATION = 1462.91
NOTE:
PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR IS TO VERIFY THE BENCHMARK DEPICTED ON THIS DRAWING AND REPORT ANY DISCREPANCIES IN THE ELEVATION OR DESCRIPTION TO THE CIVIL ENGINEER IMMEDIATELY.



LEGEND	
	EXISTING TOP OF CURB AND GUTTER ELEVATIONS
	EXISTING SPOT ELEVATION
	PROPOSED CONTOUR (REPRESENT FINISHED TOP OF PAVEMENT OR TOPSOIL)
	EXISTING CONTOUR
	PROPOSED RIDGE
	DEFINED SWALE
	PROPOSED FIN. FLOOR ELEVATION
	PROPOSED "FLOATING GARAGE"
	PROPOSED FOUNDATION BREAKS
	OVERLAND FLOW DIRECTION
	BENCHMARK
	GRATE
	PROPOSED STORM DRAIN
	EXISTING STORM DRAIN
	PROPOSED POND INVERT
	PROPOSED TOP OF RETAINING WALL
	PROPOSED BOTTOM OF RETAINING WALL
	TOP OF CURB
	FLATWORK

GRADING NOTES:

DENOTES MINIMUM ELEVATION OF FINISHED FLOOR. (ELEVATION OF FINISHED GROUND AT SLAB SHALL BE A MINIMUM OF 0.67 FEET BELOW FINISHED FLOOR ELEVATION.)

DENOTES F.H.A. LOT GRADING TYPE (MINIMUM PROPERTY STANDARDS). ALL TYPE C LOTS ARE TO BE PROTECTED IN THE FRONT BY A MINIMUM ELEVATION OF 0.2 FEET ABOVE THE CURB AT THE FRONT PROPERTY LINE.

TYPE II
 DENOTES ELEVATION AT TOP OF CURB OR AT REAR LOT CORNER.

DENOTES EXISTING NATURAL GROUND ELEVATION.

DENOTES PROPOSED FINISHED FILL ELEVATION.

NOTES

- CONTRACTOR SHALL IMMEDIATELY NOTIFY ENGINEER REGARDING ANY QUESTIONS ON INTENT OF THIS PLAN.
- MINOR GRADING ON THE REMAINING PORTION OF THE LOTS WILL BE REQUIRED TO MEET THE REQUIRED DRAINAGE PATTERNS. THE HOME BUILDER SHALL BE RESPONSIBLE FOR DETAILED GRADING ON EACH INDIVIDUAL LOT.

GENERAL SPECIFICATIONS FOR SITE PREPARATION

GENERAL DESCRIPTION

THE ITEM SHALL CONSIST OF ALL CLEARING AND PREPARATION OF LAND TO BE FILLED, FILLING OF THE LAND, SPREADING, COMPACTION TESTING AND INSPECTION OF THE FILL, AND ALL SUBSIDIARY WORK NECESSARY TO COMPLETE THE GRADING OF THE CUT AND FILL AREAS TO CONFORM WITH THE LINES, GRADES AND SLOPES AS SHOWN ON THE APPROVED PLANS.

SCARIFYING THE AREA TO BE FILLED

ALL ORGANIC MATTER SHALL BE REMOVED FROM THE SURFACE UPON WHICH THE FILL IS TO BE PLACED, AND SURFACE SHALL THEN BE DISKED OR SCARIFIED TO A MINIMUM DEPTH OF SIX INCHES (6"). ALL SURFACE RUTS OR OTHER UNEVEN FEATURES WILL BE LEVELED PRIOR TO FIELD DENSITY TESTING.

COMPACTION THE AREA TO BE FILLED

FOLLOWING THE CLEARING AND DISKING OR SCARIFYING OF THE FILL AREA, IT SHALL BE BLADED UNTIL IT IS UNIFORM AND FREE FROM LARGE CLODS. THE AREA SHALL BE BROUGHT TO THE ADEQUATE MOISTURE CONTENT AND COMPACTED (TYPICALLY) TO NOT LESS THAN NINETY PERCENT (90%) OF MAXIMUM DENSITY IN ACCORDANCE WITH THE CURRENT ASTM D 1557 COMPACTION PROCEDURE, OR 96% OF MAXIMUM DENSITY IN ACCORDANCE WITH THE CURRENT TxDOT-TEX-113-E COMPACTION PROCEDURE.

FILL MATERIALS

THE MATERIALS USED SHALL BE FREE FROM ORGANIC MATTER AND OTHER DELETERIOUS SUBSTANCES, SUCH AS TREES, BRUSH AND RUBBISH.

DEPTH AND MIXING OF FILL LAYERS

THE SELECTED FILL MATERIAL SHALL BE PLACED IN LEVEL, UNIFORM LAYERS WHICH, WHEN COMPACTED, SHALL HAVE A DENSITY CONFORMING TO THE STIPULATED ABOVE. EACH LAYER SHALL BE THOROUGHLY MIXED DURING THE SPREADING TO ENSURE UNIFORMITY OF MATERIAL IN EACH LAYER. COMPACTED LAYER THICKNESS MAY VARY DEPENDING ON THE COMPACTION EQUIPMENT OF THE DEMONSTRATED CAPABILITY. THE MAXIMUM LOOSE DEPTH FOR ANY MATERIAL SHALL NOT EXCEED TWELVE INCHES (12").

ROCK

WHEN FILL MATERIAL INCLUDES ROCK, THE MAXIMUM ROCK SIZE SHALL BE AS APPROVED BY THE GEOTECHNICAL ENGINEER. NO LARGE ROCKS SHALL BE ALLOWED TO NEST AND ALL VOIDS MUST BE FILLED WITH SMALL STONES OR SOIL AND ADEQUATELY COMPACTED. NO LARGE ROCKS WILL BE PERMITTED WITHIN EIGHTEEN INCHES (18") OF THE FINISHED GRADE.

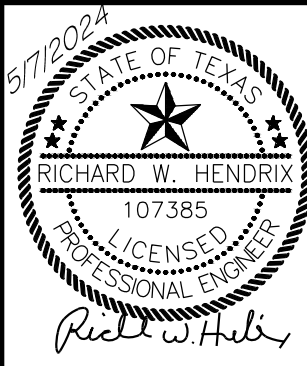
COMPACTION OF FILL LAYER

COMPACTION EQUIPMENT SHALL BE CAPABLE OF COMPACTING THE FILL TO THE SPECIFIED DENSITY. COMPACTION SHALL BE ACCOMPLISHED WHILE THE FILL MATERIAL IS AT OR NEAR THE APPROPRIATE MOISTURE CONTENT. COMPACTION OF EACH LAYER SHALL BE CONTINUOUS OVER THE ENTIRE STRUCTURAL AREA (BENEATH PROPOSED STRUCTURES).

DENSITY TEST

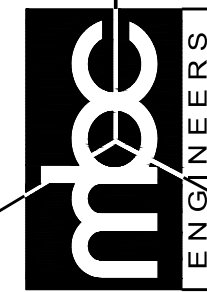
FIELD DENSITY TESTS SHALL BE PERFORMED ON LAYERS OF FILL WHEN THE FILL IS BEING PLACED AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE MAXIMUM FILL HEIGHT BETWEEN DENSITY TESTING SHALL BE EIGHTEEN INCHES (18"). ALL TESTING SHALL BE REQUESTED BY THE CONTRACTOR TO MEET THE CONTRACTORS CONSTRUCTION SCHEDULE. CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT THE TESTING LAB PERFORMS ALL TEST REQUIRED BY FHA SPECIFICATION.

ISSUED FOR PERMIT
05-07-2024



PRIMARY CONTACT:
RICHARD HENDRIX, P.E.

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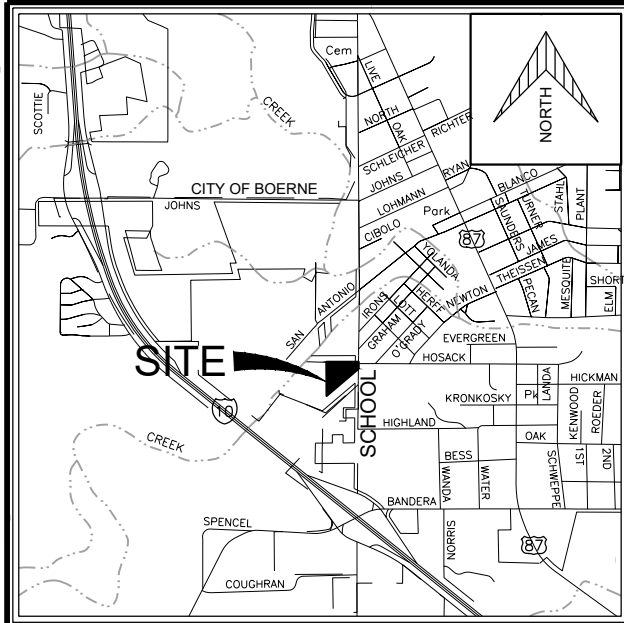


SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
LOT GRADING PLAN

REVISIONS:				
DATE	No.	DESCRIPTION	BY	
03/20/2024	1	EXTEND GRAVITY SEWER REMOVE LIFT STATION	RWH	
05/07/2024	2	CITY SEWER COMMENTS	RWH	

PLAT ID# -
DESIGN - RH
DRAWN - RH
CHECKED - DLA
DATE - 01-11-2021

JOB NO.
32653-BOERNE
C08.00



NOTE:
REFERENCE GENERAL NOTES ON SHEET C02.00
PRIOR TO BID AND CONSTRUCTION

NOTE:
CONTRACTOR TO LOCATE AND FIELD VERIFY ALL EXISTING UTILITIES INCLUDING, BUT NOT LIMITED TO, WATER LINES, GAS LINES, SEWER LINES AND ELECTRIC LINES.

GENERAL NOTES

1. CONCRETE FOR CHANNEL RIP-RAP SHALL BE CLASS "A" 4000 P.S.I.
2. ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS UNLESS OTHERWISE SHOWN.
3. ALL REINFORCEMENT STEEL SHALL MEET ASTM DESIGNATIONS AS CALLED FOR IN THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION".

IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY PLAN AND CONSIDER EXISTING AND PROPOSED DRAINAGE PATTERNS DURING THE CONSTRUCTION OF THE PROJECT. IN ORDER TO ACCOMPLISH THIS, IT MAY BE NECESSARY TO PHASE THE GRADING, CONSTRUCT TEMPORARY BERMS AND SWALES WHILE FACTORING IN SURROUNDING CONDITIONS TO PROPERLY DIRECT AND CONTROL SURFACE RUNOFF. ADDITIONALLY, THE CONTRACTOR SHOULD TAKE INTO ACCOUNT THE TIMING OF CONSTRUCTING PONDS, CHANNELS AND STORM DRAINAGE SYSTEMS.

TRENCH EXCAVATION SAFETY PROTECTION

CONTRACTOR AND/OR CONTRACTORS INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL SAFETY EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTORS INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

GRADING NOTES:
CONTRACTOR TO MAINTAIN POSITIVE SITE DRAINAGE AWAY FROM BUILDING AT ALL TIMES.

NOTE:
RE-VEGETATE ALL DISTURBED AREAS. NATIVE, NONINVASIVE TURF GRASSES (NOT BUNCH GRASSES) SHOULD BE PLANTED AND MAINTAINED AT A MINIMUM HEIGHT OF 4 INCHES. CONTRACTOR IS RESPONSIBLE FOR TEMPORARY IRRIGATION AND OR WATERING UNTIL 85% GROWTH HAS BEEN ESTABLISHED.

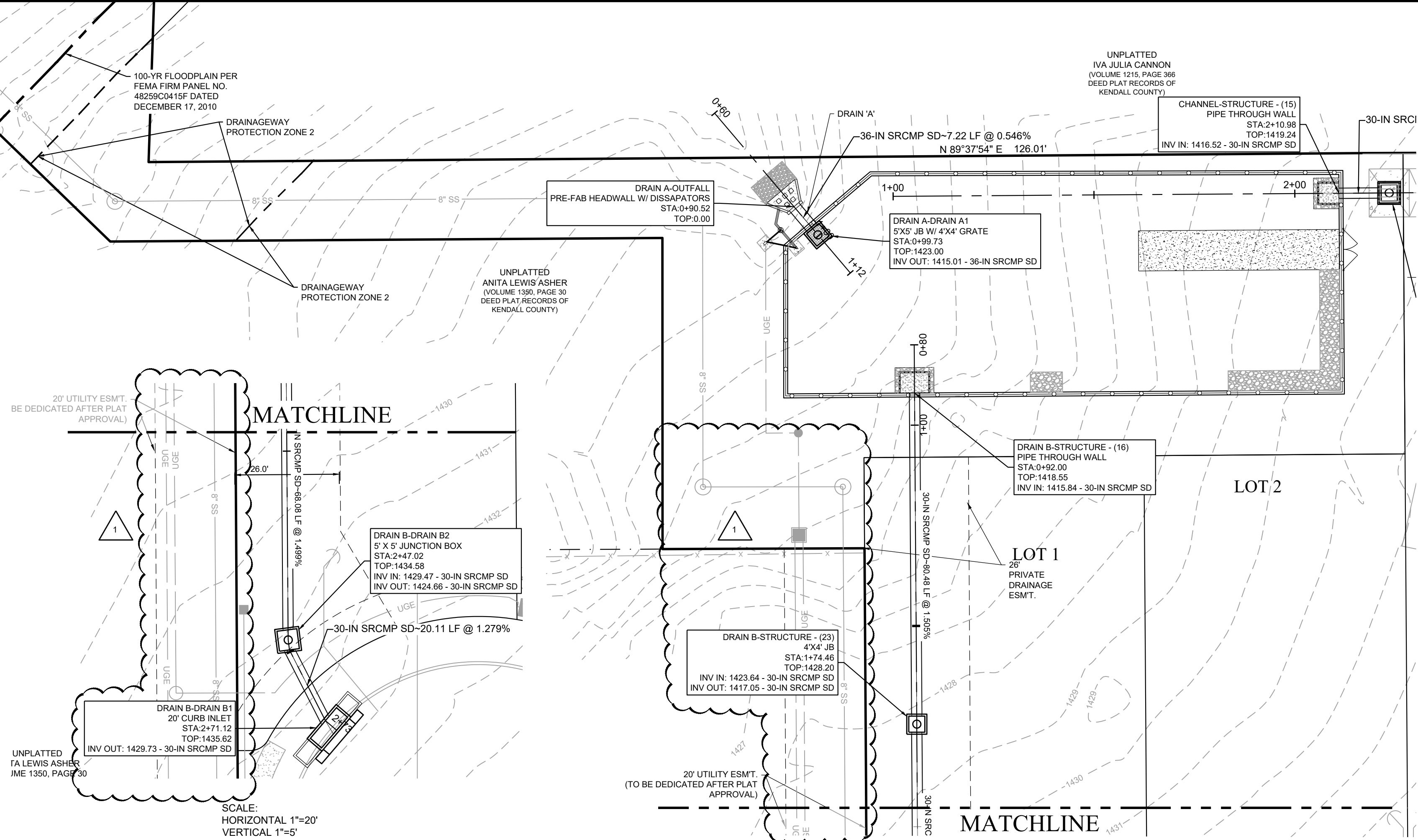
TESTING NOTES:

1. THE OWNER SHALL CONTRACT WITH AND PAY FOR THE PROFESSIONAL SERVICES OF A NATIONALLY-ACCREDITED, INDEPENDENT TESTING LABORATORY TO PERFORM TESTING SERVICES. COPIES OF ALL REPORTS COMPLIED BY SAID TESTING LABORATORY SHALL BE SUBMITTED TO THE CONTRACTOR AND THE ENGINEER.
2. A MINIMUM OF 3 DENSITY TESTS PER 400 LINEAR FEET OF TRENCH MUST BE COMPLETED ON EACH LIFT OF BACKFILL MATERIAL. ANY FAILED TEST SHALL REQUIRE THE CONTRACTOR TO REMOVE AND REPLACE OR REWORK AS REQUIRED THE LAYER OF BACKFILL TO POINTS HALFWAY TO THE NEXT TEST LOCATION AT NO ADDITIONAL COST. RETEST OF THESE AREAS SHALL BE AT THE CONTRACTOR'S EXPENSE.
3. THE CONTRACTOR SHALL PROVIDE ACCESS TO THE TEST AREA, ASSOCIATED TRENCH EXCAVATION SAFETY PROTECTION, AND BACKFILLING OF THE TEST AREA AT THE CONTRACTOR'S EXPENSE.
4. ALL EXCAVATION, TRENCHING AND BACKFILLING OF THE UNDERGROUND STORM DRAIN SHALL MEET THE CITY OF BOERNE STANDARD SPECIFICATIONS, AS MINIMUM.

NOTE:
CONTRACTOR TO LOCATE AND FIELD VERIFY ALL EXISTING UTILITIES INCLUDING, BUT NOT LIMITED TO, WATER LINES, GAS LINES, SEWER LINES AND ELECTRIC LINES.

NOTES:

1. CONTRACTOR SHALL PROTECT ALL EXISTING FENCES. ANY FENCE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY SIZE, GRADE, AND LOCATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DEVIATIONS FROM PLANS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR, AT HIS EXPENSE.
3. BY WHATEVER MEANS NECESSARY, CONTRACTOR SHALL MAINTAIN UNINTERRUPTED SERVICE TO ALL EXISTING DRAINAGE STRUCTURES THROUGHOUT CONSTRUCTION.
4. CONTRACTOR SHALL NOT REMOVE ANY EXISTING TREES.
5. IF THE GIVEN TOP OF MANHOLE ELEVATION DOES NOT AGREE ON ACTUAL GROUND SURFACE OR FINISH PAVEMENT, THE CONTRACTOR SHALL ADJUST ELEVATIONS SUCH THAT THE TOP OF MANHOLE SHALL BE 0.5' ABOVE EXISTING GROUND, OR FLUSH TO FINISH ASPHALT PAVEMENT.
6. CONTOURS SHOWN ARE FOR GRAPHICAL USE ONLY.
7. CONTRACTOR MUST PROVIDE ENGINEER OR DESIGNATED CONSTRUCTION OBSERVER WITH OPPORTUNITY TO OBSERVE CONTRACTORS IMPLEMENTATION OF APPROVED TREATMENT METHOD.
8. STORM DRAIN SHALL BE R.C.P., OR SPIRAL RIBBED CORRUGATE METAL PIPE.



SITE CONCRETE DRAINAGE NOTES:

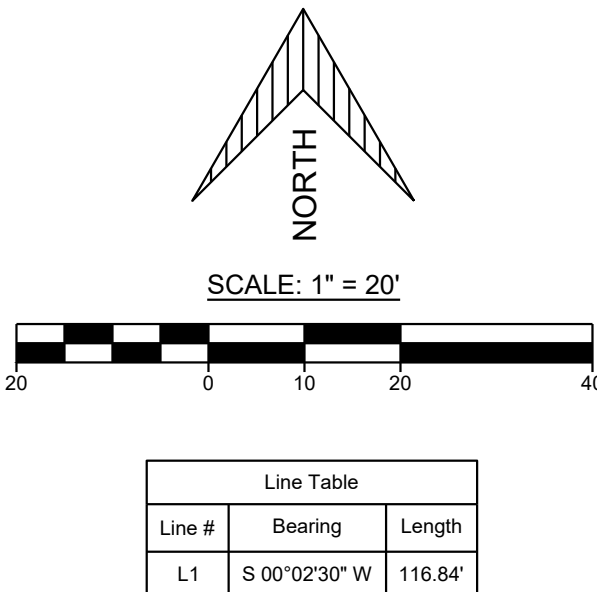
1. EXPOSED CONCRETE SURFACES SHALL BE BROOM FINISHED.
2. ANY IRREGULAR AREA SHALL BE HAND RUBBED TO A SMOOTH FINISH.
3. ALL EXPOSED EDGES SHALL RECEIVE A 3/4" CHAMFER.
4. ALL MATERIALS AND WORKMANSHIP SHALL BE DONE IN ACCORDANCE WITH CITY OF BOERNE DRAINAGE CRITERIA MANUAL, AS WELL AS ITEM 360 (TXDOT STD SPECS, LATEST ED.)
5. JOINTS TO BE COMPLETED PRIOR TO CONCRETE SHRINKAGE OCCURRING.

DRAINAGE SYSTEM NOTE:
ALL PIPES VELOCITIES ARE UNDER 12 FPS WITH A 100 YEAR FLOW VALUE.

100-YEAR HYDRAULIC CALCULATION FOR "CURB INLET"

$Q = C \cdot L \cdot H^{3/2}$
 $C = 3.087$
 $H = 0.79'$
 $Q_{25} = 41.44 \text{ cfs}$
 $L = 19.11'$ REQUIRED
20.0' CURB INLET PROVIDED

SCALE:
HORIZONTAL 1"=20'
VERTICAL 1"=5'



5/7/2024
STATE OF TEXAS
RICHARD W. HENDRIX
107385
LICENSED PROFESSIONAL ENGINEER
Richard W. Hendrix

PRIMARY CONTACT:
RICHARD HENDRIX, P.E.

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mbc
ENGINEERS

SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
DRAIN A & B - PLAN & PROFILE

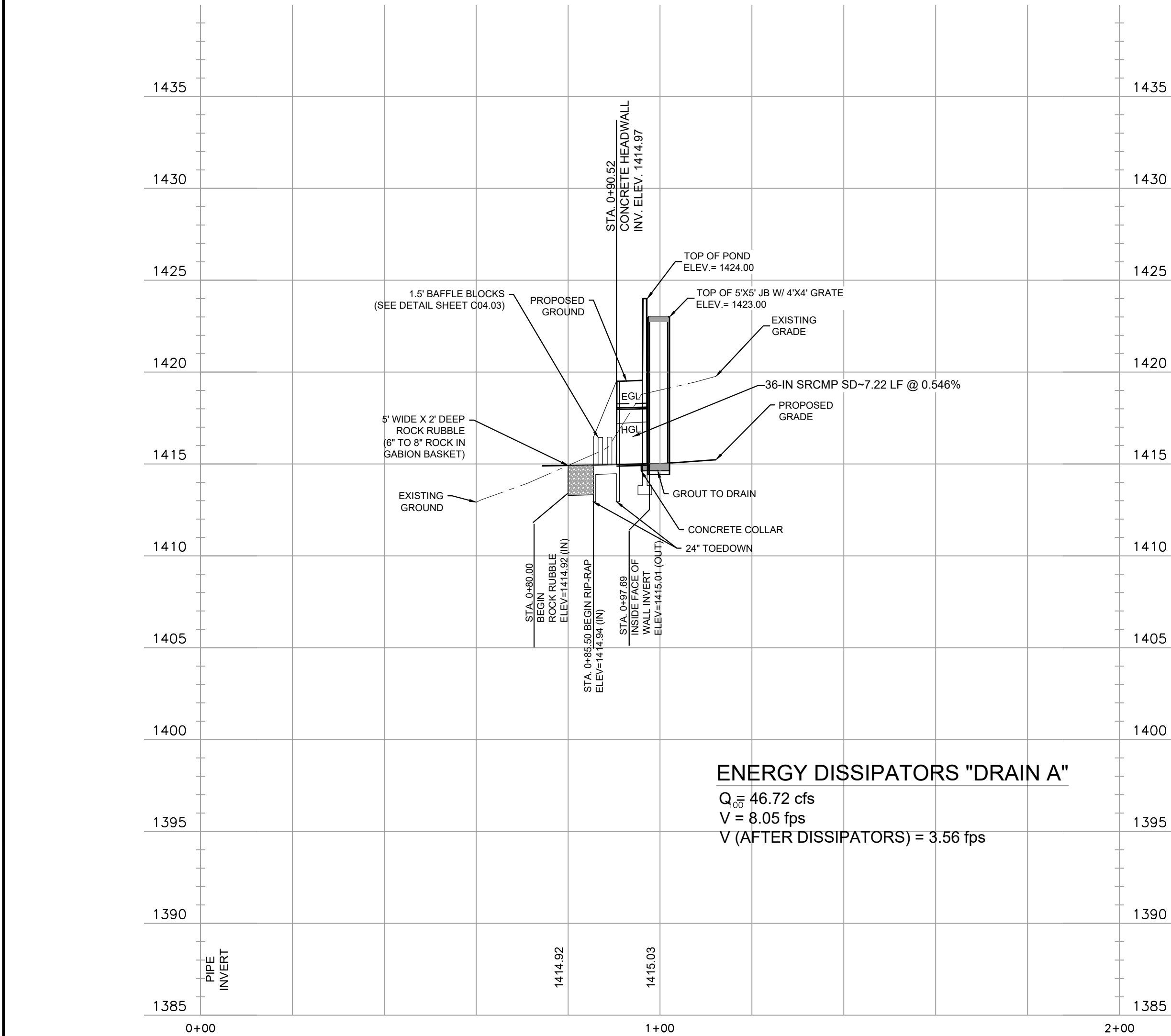
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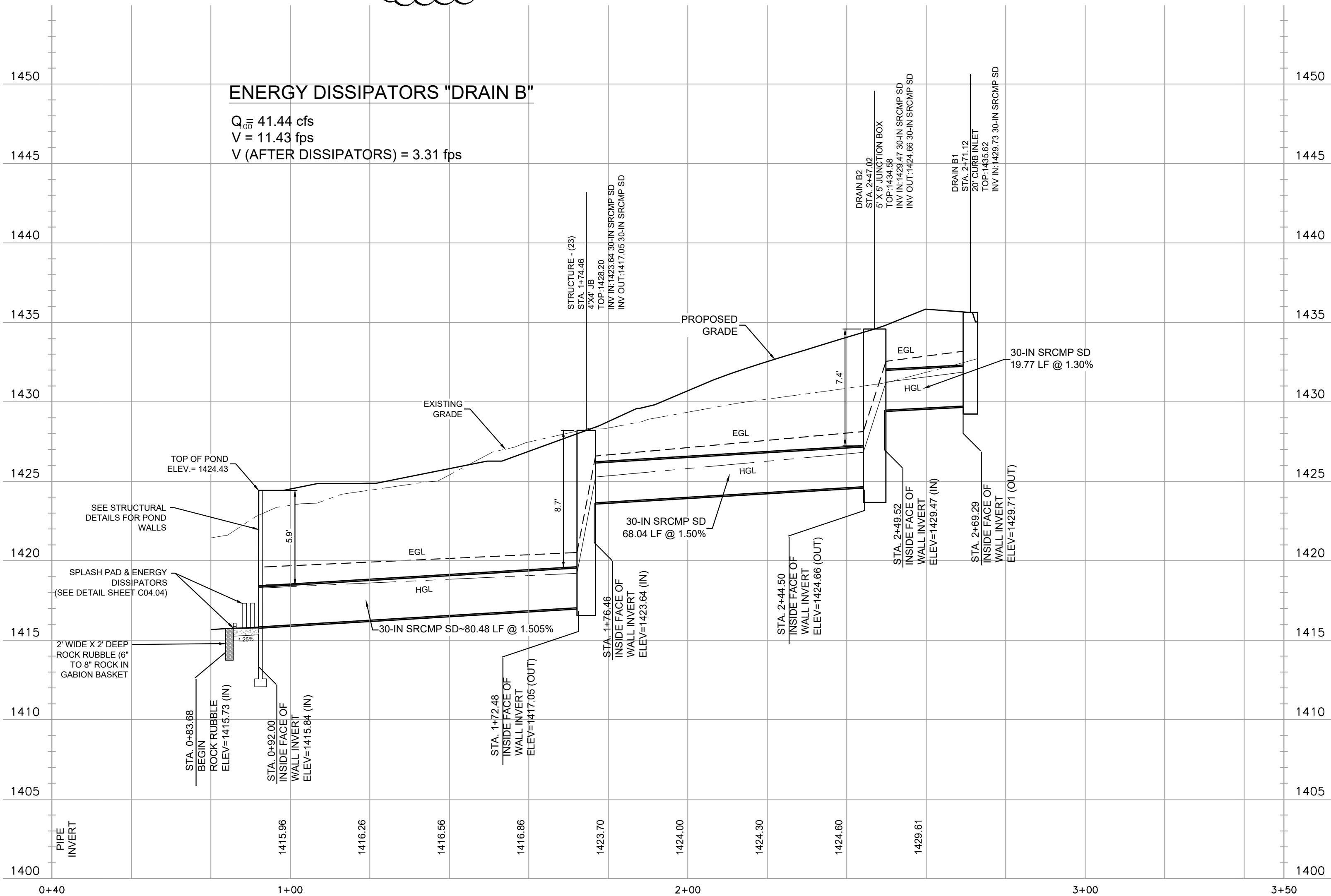
C09.00



ENERGY DISSIPATORS "DRAIN A"

$Q_{25} = 46.72 \text{ cfs}$
 $V = 8.05 \text{ fps}$
 $V \text{ (AFTER DISSIPATORS)} = 3.56 \text{ fps}$

DRAIN "A" PROFILE

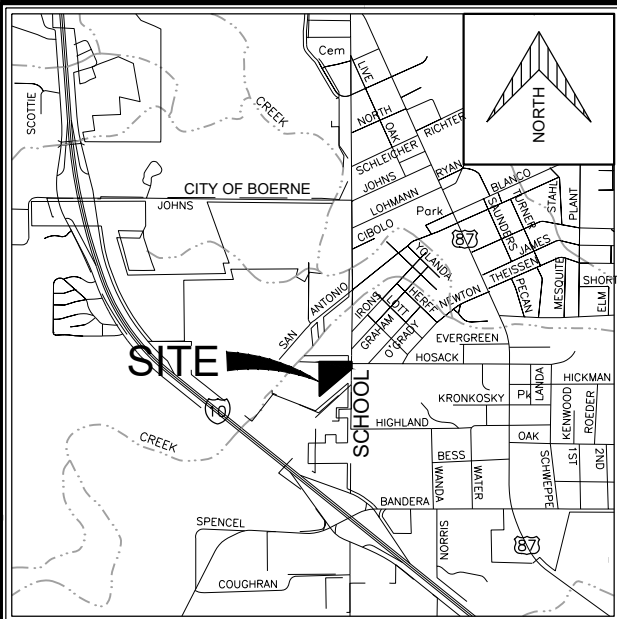


ENERGY DISSIPATORS "DRAIN B"

$Q_{25} = 41.44 \text{ cfs}$
 $V = 11.43 \text{ fps}$
 $V \text{ (AFTER DISSIPATORS)} = 3.31 \text{ fps}$

DRAIN "B" PROFILE

ISSUED FOR PERMIT
05-07-2024



NOTE:
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NOTE:
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TRENCH EXCAVATION SAFETY PROTECTION
CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATIONS.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY PLAN AND CONSIDER EXISTING AND PROPOSED DRAINAGE PATTERNS DURING THE CONSTRUCTION OF THE PROJECT. IN ORDER TO ACCOMPLISH THIS, IT MAY BE NECESSARY TO PHASE THE GRADING, CONSTRUCT TEMPORARY BERMS AND SWALES WHILE FACTORING IN SURROUNDING CONDITIONS TO PROPERLY DIRECT AND CONTROL SURFACE RUNOFF. ADDITIONALLY, THE CONTRACTOR SHOULD TAKE INTO ACCOUNT THE TIMING OF CONSTRUCTING PONDS, CHANNELS AND STORM DRAINAGE SYSTEMS.

GRADING NOTES:
CONTRACTOR TO MAINTAIN POSITIVE SITE DRAINAGE AWAY FROM BUILDING AT ALL TIMES.

SITE CONCRETE DRAINAGE NOTES:

- EXPOSED CONCRETE SURFACES SHALL BE BROOM FINISHED.
- ANY IRREGULAR AREA SHALL BE HAND RUBBED TO A SMOOTH FINISH.
- ALL EXPOSED EDGES SHALL RECEIVE A 3/4" CHAMFER.
- ALL MATERIALS AND WORKMANSHIP SHALL BE DONE IN ACCORDANCE WITH CITY OF BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, AS WELL AS ITEM 360 (TXDOT STD SPECS, LATEST ED.)
- JOINTS TO BE COMPLETED PRIOR TO CONCRETE SHRINKAGE OCCURRING.
- CONCRETE FOR CHANNEL RIP-RAP SHALL BE 4,000 P.S.I.
- ALL DIMENSIONS RELATING TO REINFORCING STEEL ARE TO CENTER OF BARS UNLESS OTHERWISE SHOWN.
- ALL REINFORCEMENT STEEL SHALL MEET ASTM DESIGNATIONS AS CALLED FOR IN THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION".

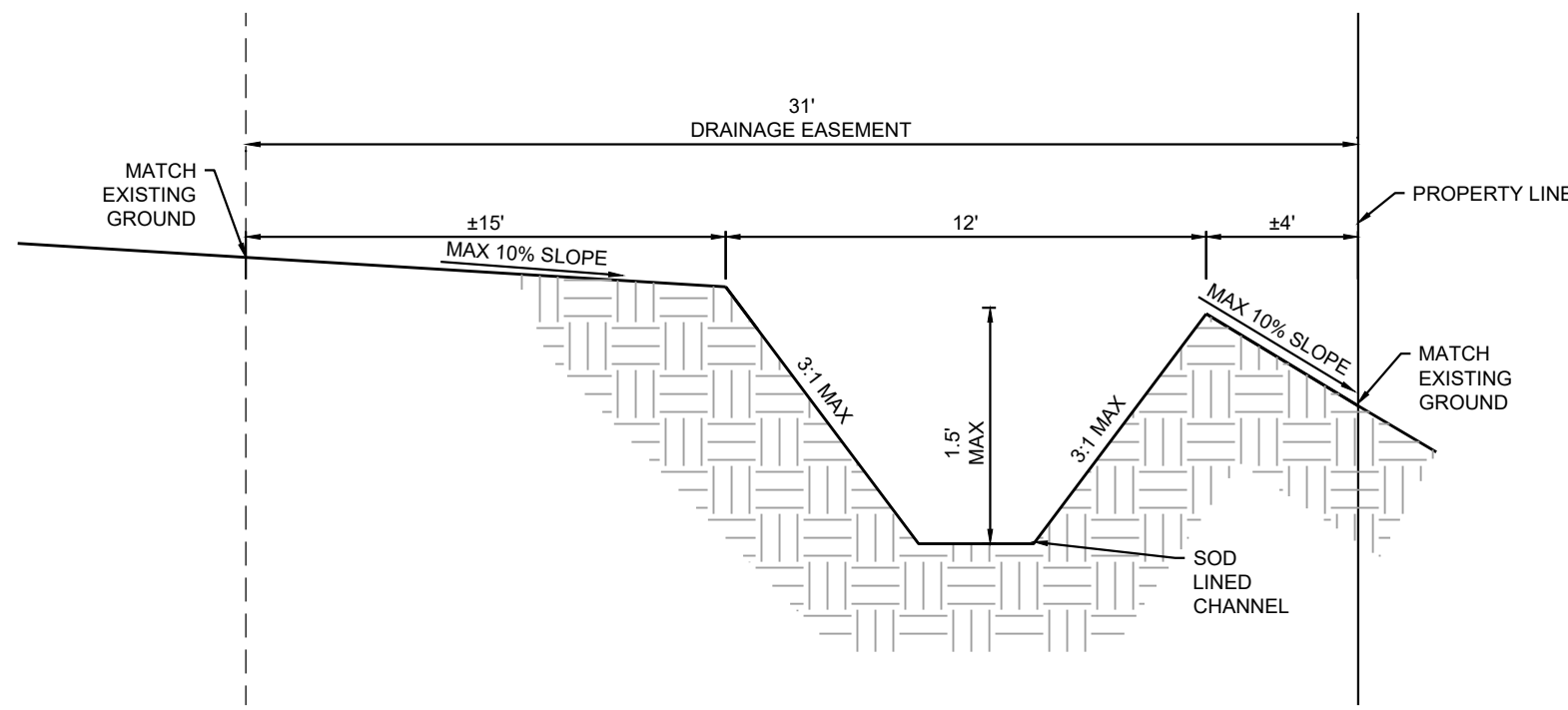
SITE CHANNEL NOTES:

- ALL FILL MATERIAL, WHICH MAY CONSIST OF APPROVED ONSITE SOILS AND/OR OFFSITE BORROW MATERIAL, SHALL BE FREE OF ALL DEBRIS, ORGANIC MATERIAL, AND CLUMPS AND SHALL BE ADJUSTED TO THE PROPER MOISTURE CONTENT. ALL FILL PLACED WITHIN DRAIN EASEMENT SHALL BE COMPACTED TO 95% MAXIMUM DRY DENSITY.
- ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH CITY OF BOERNE STANDARD SPECIFICATIONS.
- ALL WORK SHOWN ON THIS SHEET MUST BE INSPECTED BY THE CITY OF BOERNE PUBLIC WORKS DEPARTMENT. CONTRACTOR SHALL DELIVER LETTERS OF ACCEPTANCE FROM EACH REVIEWING AGENCY PRIOR TO FULL PAYMENT OF OWNER.

NOTE FOR EARTHEN CHANNEL:
IMPROVED EARTHEN CHANNELS WILL BE VEGETATED BY SEEDING OR SODDING. EIGHTY-FIVE PERCENT OF THE CHANNEL SURFACE AREA MUST HAVE ESTABLISHED VEGETATION BEFORE THE CITY OF BOERNE WILL ACCEPT THE CHANNEL FOR MAINTENANCE.

NOTE:
CONSTRUCTION TO BEGIN AT STA. 0+10. CONTRACTOR TO SMOOTHLY TRANSITION INTO EXISTING EARTHEN CHANNEL.

TRM NOTE:
AT THE PRE-FINAL INSPECTION, THE ENGINEER MUST ISSUE CERTIFICATION TO THE CITY INSPECTOR THAT THE TURF REINFORCEMENT MAT (TRM) WAS INSTALLED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE CERTIFICATION MUST ALSO NOTE THAT THE MATERIAL AND INSTALLATION HAS MET CITY AND MANUFACTURER SPECIFICATIONS.



NOTE
CONTRACTOR TO LOCATE AND FIELD VERIFY ALL EXISTING UTILITIES INCLUDING, BUT NOT LIMITED TO, WATER LINES, GAS LINES, SEWER LINES AND ELECTRIC LINES.

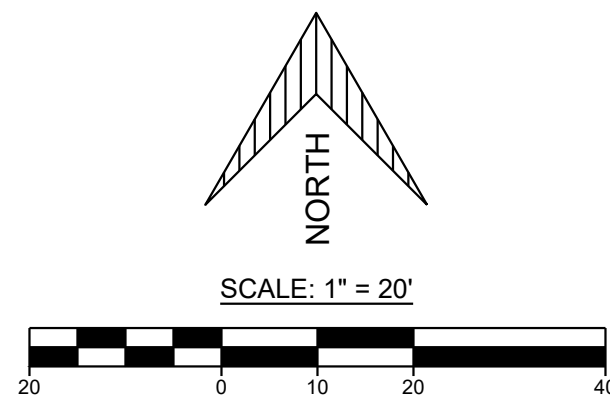
Line Table		
Line #	Bearing	Length
L1	S 00°02'30" W	116.84'

**5-YEAR
HYDRAULIC CALCULATION
FOR "DRAIN C" - SEC A**

$Q_{50} = 1.63$ cfs
 $n = 0.035$
 $S = 3.73\%$
 $V = 2.42$ fps
 $D_p = 0.19'$

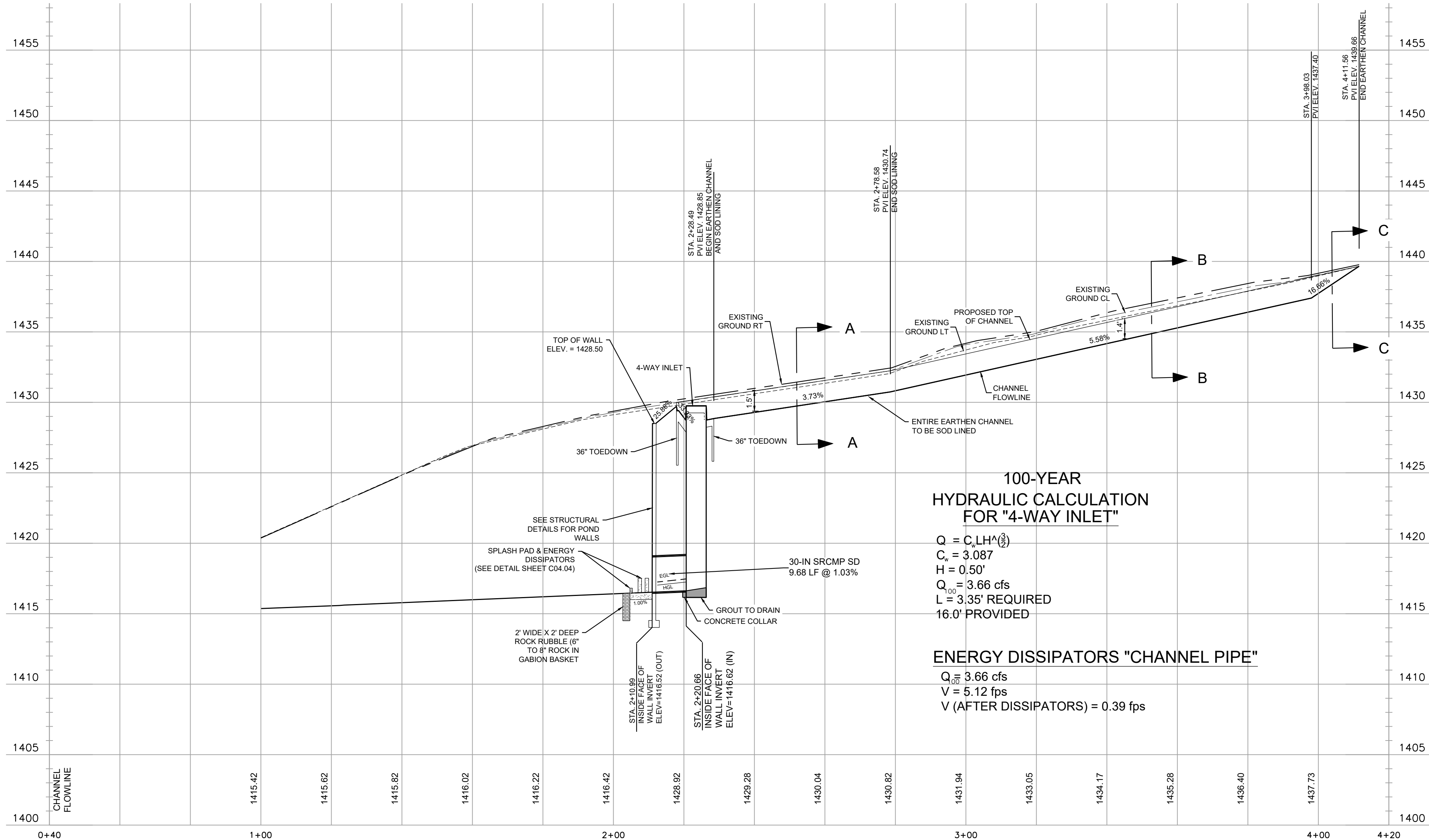
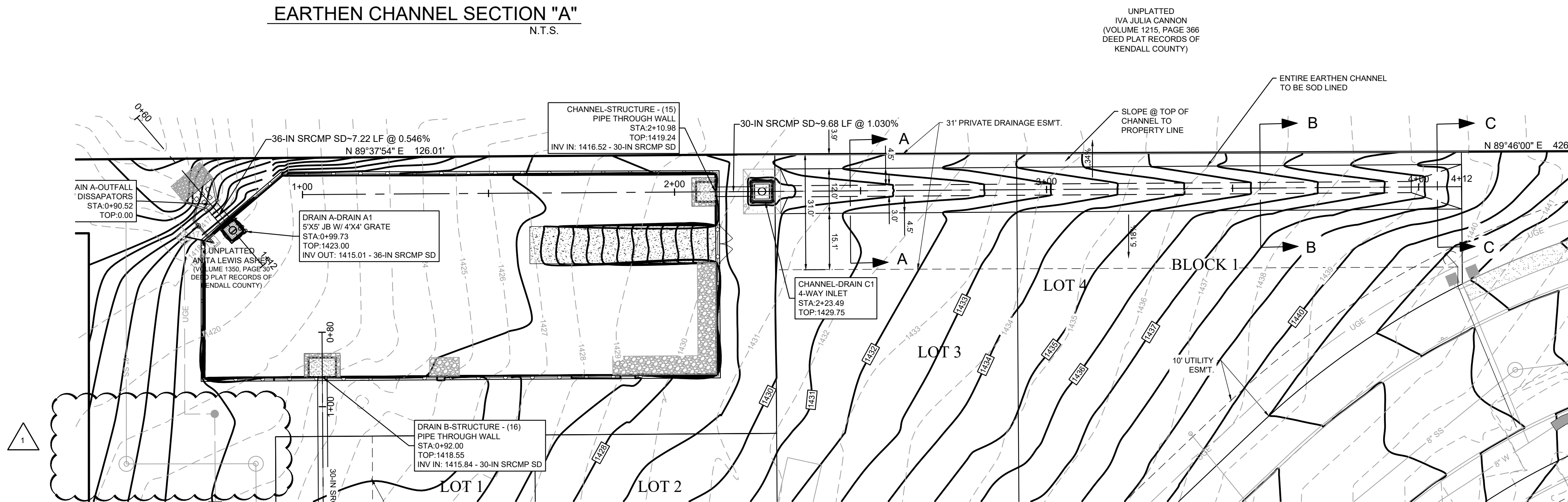
**100-YEAR
HYDRAULIC CALCULATION
FOR "DRAIN C" - SEC A**

$Q_{100} = 3.66$ cfs
 $n = 0.035$
 $S = 3.73\%$
 $V = 3.15$ fps
 $D_p = 0.30'$



LEGEND	
	EXISTING TOP OF CURB AND GUTTER ELEVATIONS
	EXISTING SPOT ELEVATION
	PROPOSED CONTOUR (REPRESENT FINISHED TOP OF PAVEMENT OR TOPSOIL)
	EXISTING CONTOUR
	PROPOSED RIDGE
	DEFINED SWALE
	PROPOSED FIN. FLOOR ELEVATION
	PROPOSED "FLOATING GARAGE"
	PROPOSED FOUNDATION BREAKS
	OVERLAND FLOW DIRECTION
	BENCHMARK
	GRATE
	PROPOSED STORM DRAIN
	EXISTING STORM DRAIN
	PROPOSED POND INVERT
	PROPOSED TOP OF RETAINING WALL
	PROPOSED BOTTOM OF RETAINING WALL
	PROPOSED SPOT ELEVATION (REPRESENT FINISHED TOP OF PAVEMENT OR TOPSOIL)

DRAINAGE SYSTEM NOTE:
ALL PIPES VELOCITIES ARE UNDER 12 FPS WITH A 100-YEAR FLOW VALUE.



SCALE:
HORIZONTAL 1"=20'
VERTICAL 1"=5'

**100-YEAR
HYDRAULIC CALCULATION
STA: 3+98.03 - STA: 4+11.56 (SOD LINED)
FOR "DRAIN C" - SEC C**

$Q_{100} = 1.02$ cfs
 $n = 0.035$
 $S = 16.66\%$
 $V = 3.35$ fps
 $D_p = 0.093'$

**100-YEAR
HYDRAULIC CALCULATION
STA: 2+78.58 - STA: 3+98.03 (SOD LINED)
FOR "DRAIN C" - SEC B**

$Q_{100} = 1.72$ cfs
 $n = 0.035$
 $S = 5.58\%$
 $V = 2.82$ fps
 $D_p = 0.17'$

**100-YEAR
HYDRAULIC CALCULATION
STA: 2+27.00 - STA: 2+78.58 (SOD LINED)
FOR "DRAIN C" - SEC A**

$Q_{100} = 3.66$ cfs
 $n = 0.035$
 $S = 3.73\%$
 $V = 3.15$ fps
 $D_p = 0.30'$

**100-YEAR
HYDRAULIC CALCULATION
FOR "4-WAY INLET"**

$Q_c = C_s L H^{3/2}$
 $C_s = 3.087$
 $H = 0.50'$
 $Q_{100} = 3.66$ cfs
 $L = 3.35'$ REQUIRED
16.0' PROVIDED

ENERGY DISSIPATORS "CHANNEL PIPE"

$Q_{100} = 3.66$ cfs
 $V = 5.12$ fps
 V (AFTER DISSIPATORS) = 0.39 fps

ISSUED FOR PERMIT
05-07-2024

5/7/2024
STATE OF TEXAS
RICHARD W. HENDRIX
107385
LICENSED PROFESSIONAL ENGINEER
Richard Hendrix

PRIMARY CONTACT:
RICHARD HENDRIX, P.E.

MACINA • BOSE • COPELAND & ASSOC., INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
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(210) 545-1122 Fax (210) 545-9302 www.mcbengineering.com
FIRM REGISTRATION NUMBER: T.B.P.E. F-784 & T.B.L.S. 10011700

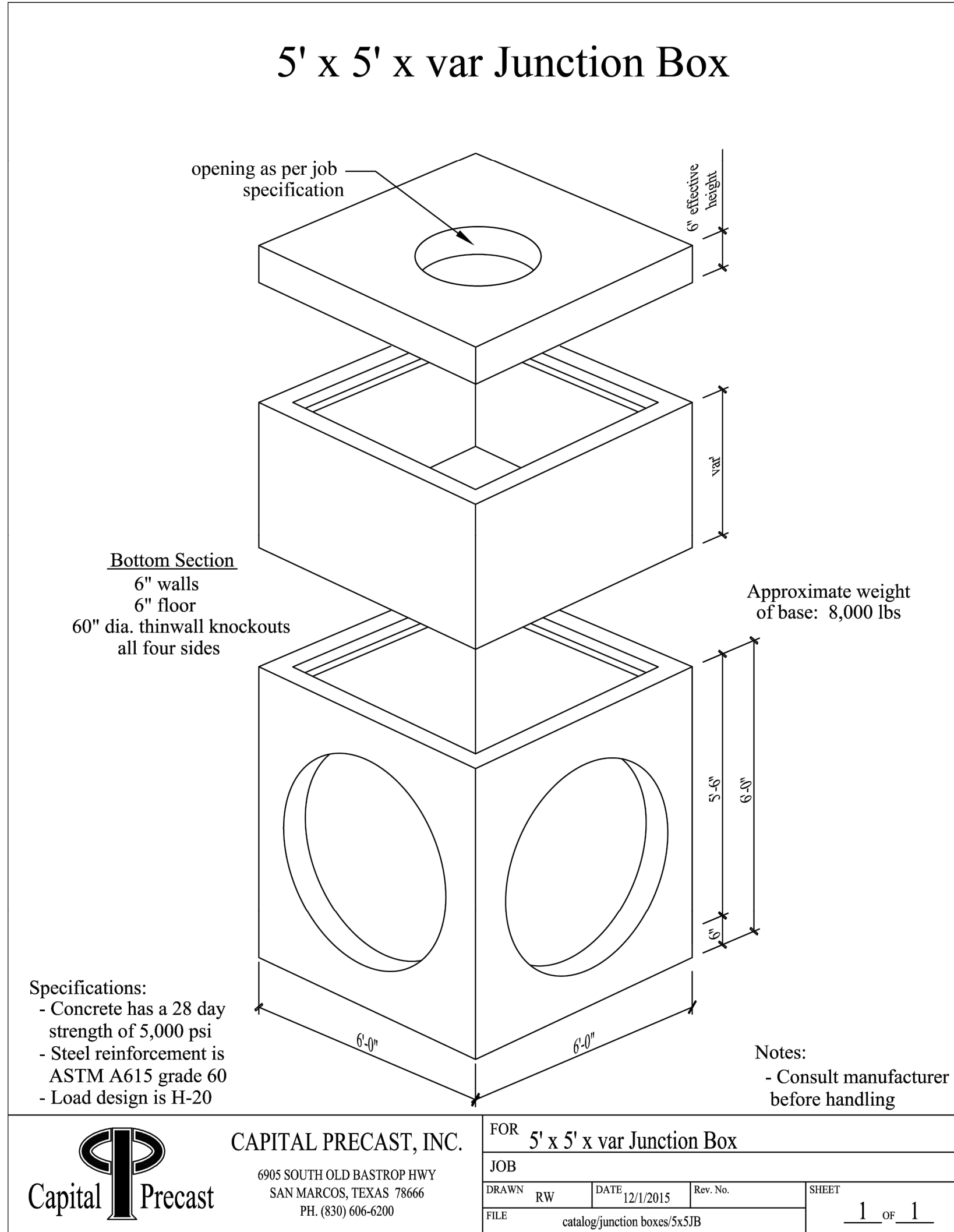
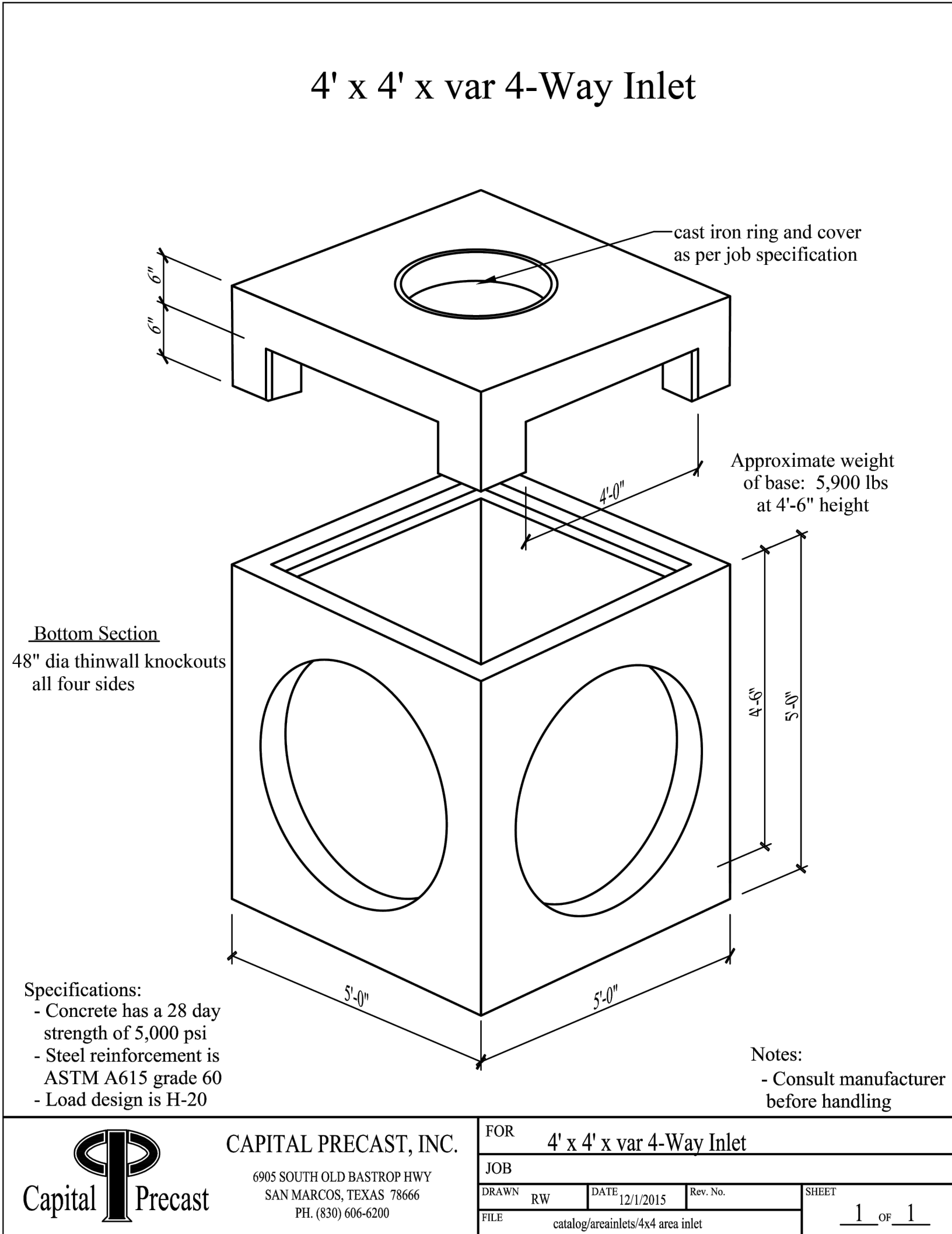
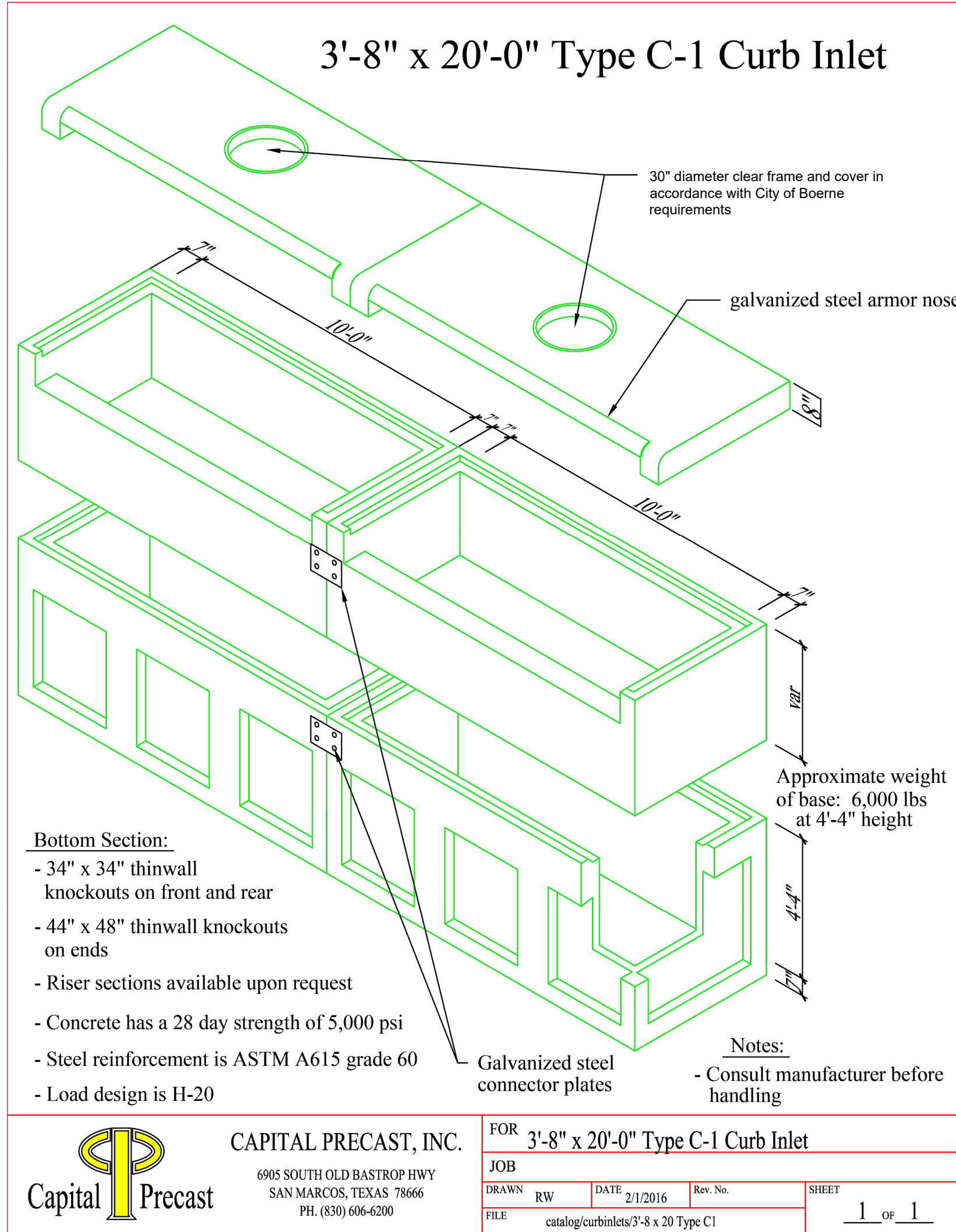
SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
PRIVATE CHANNEL PLAN AND PROFILE

REVISIONS:	DATE	DESCRIPTION	BY
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2	05/07/2024	CITY SEWER COMMENTS	RWH

PLAT ID#
DESIGN
DRAWN
CHECKED
DATE
JOB NO.

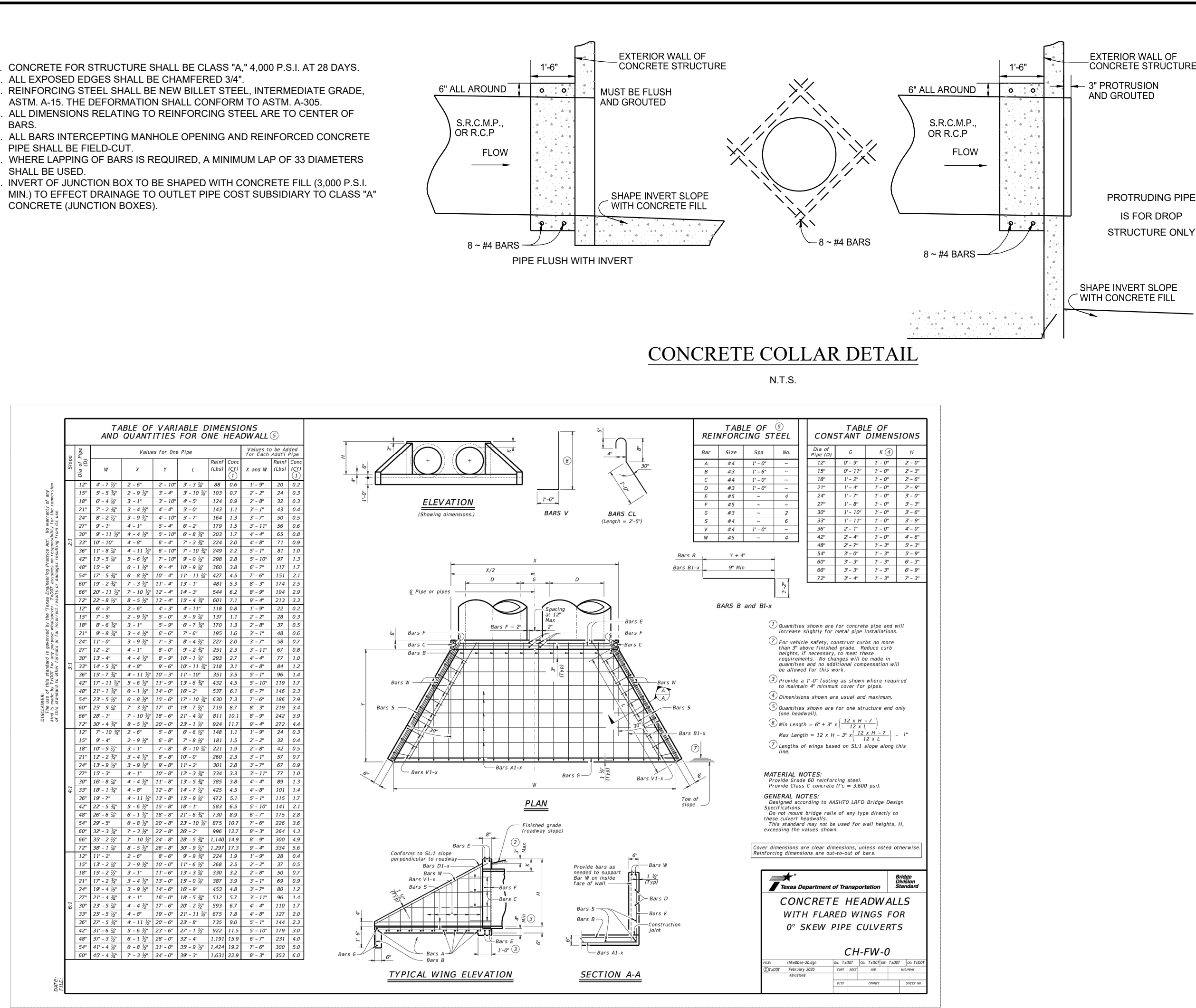
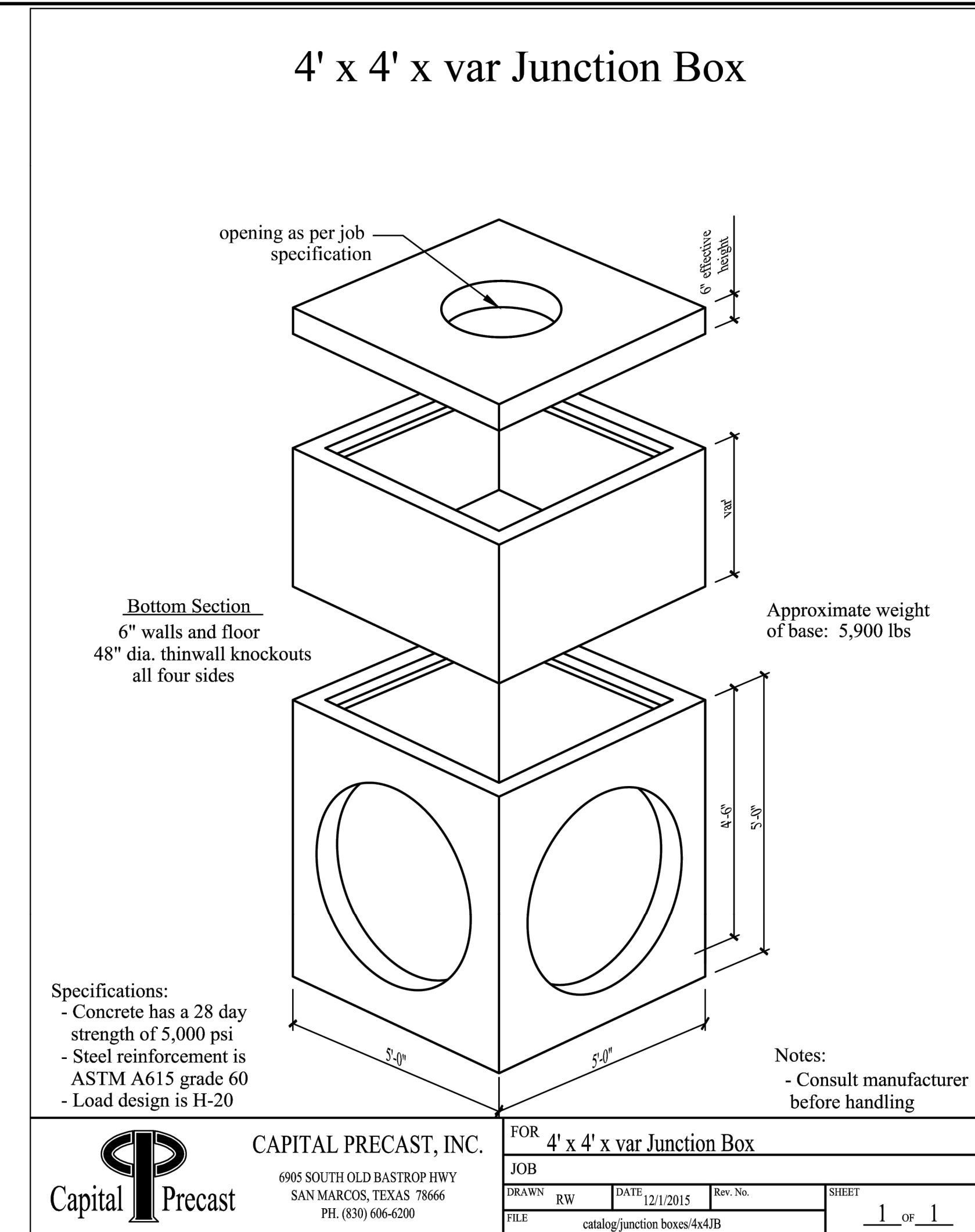
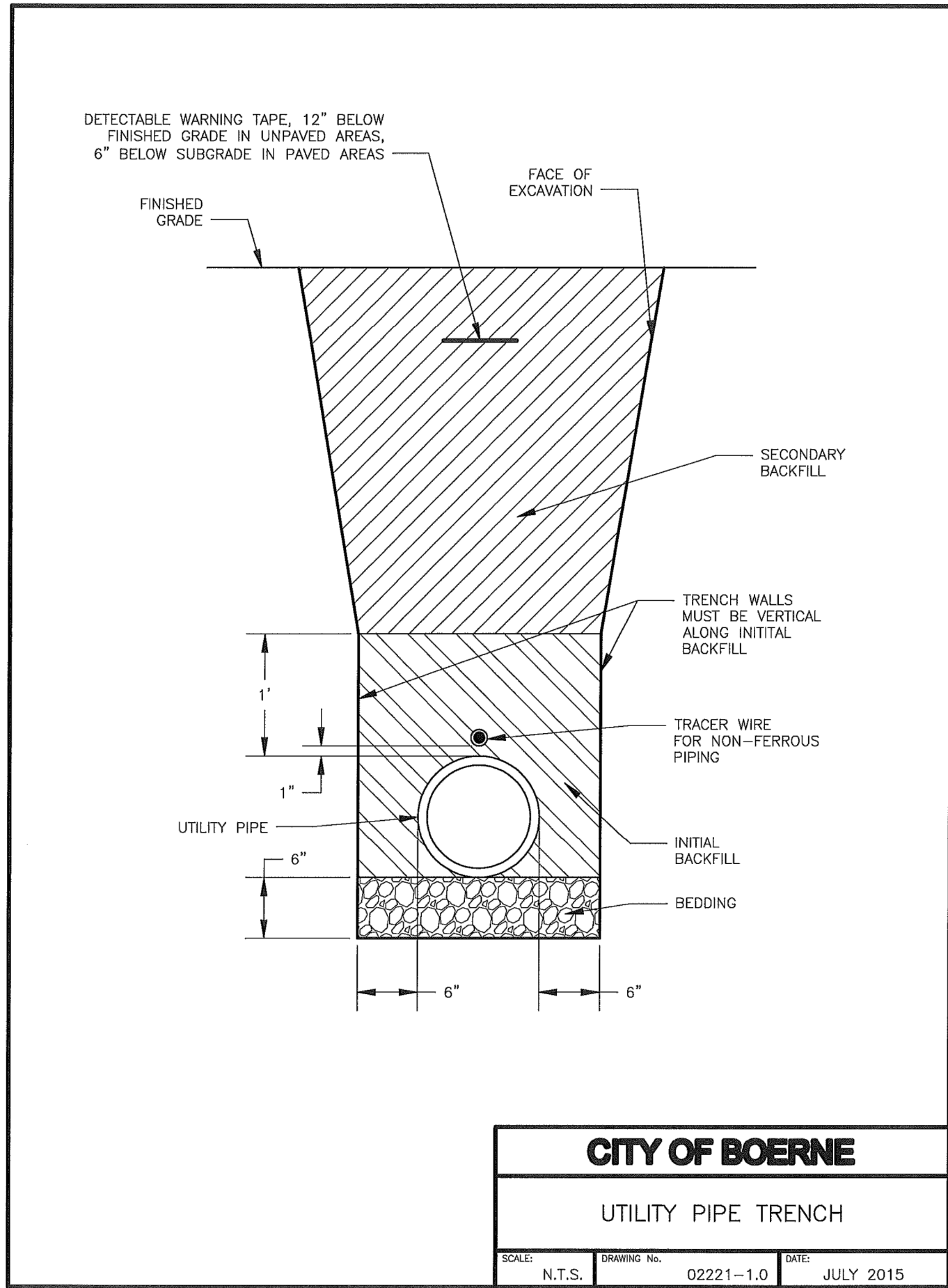
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DESIGN
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CHECKED
DATE
JOB NO.

32653-BOERNE
C059.01



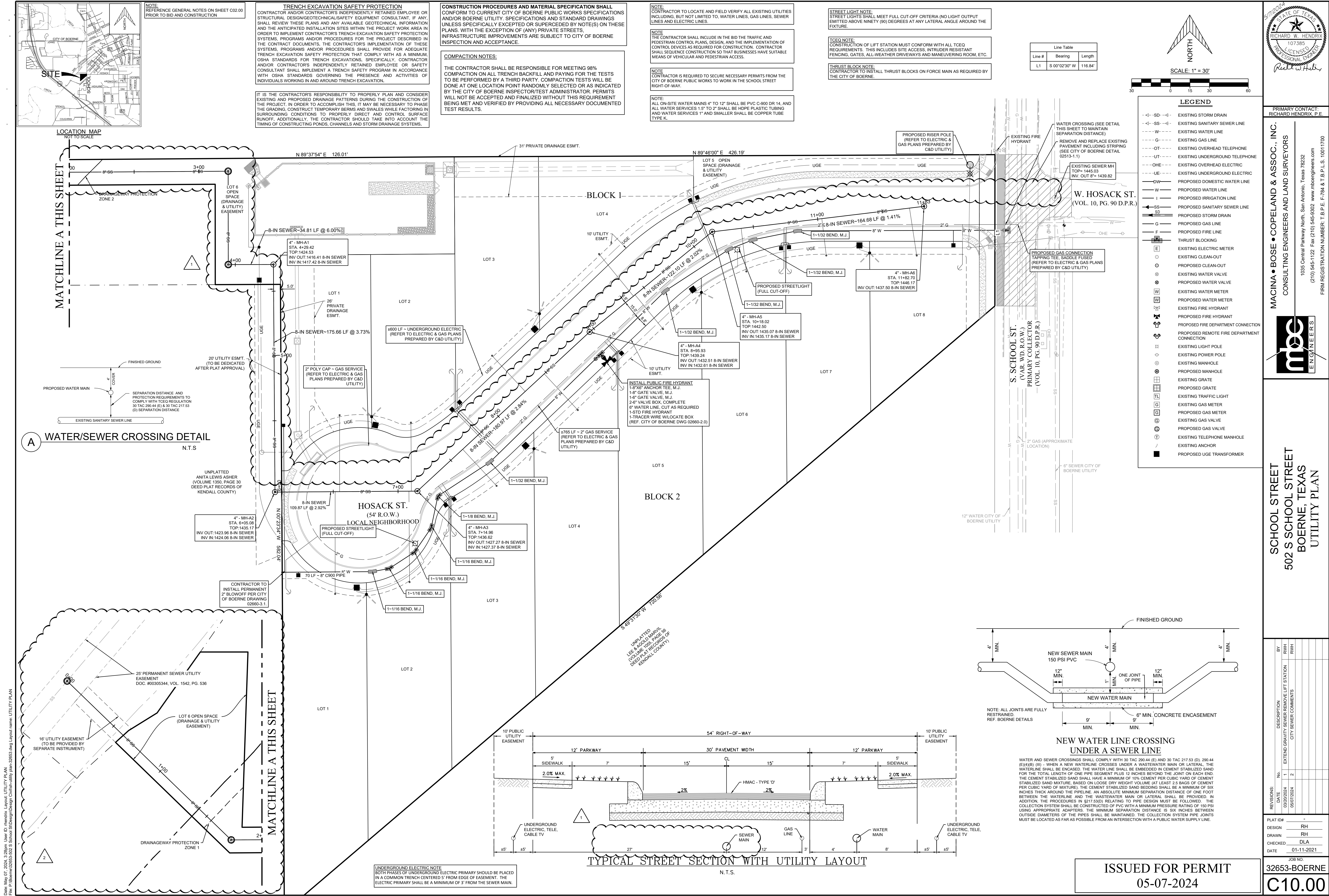
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03-19-2024

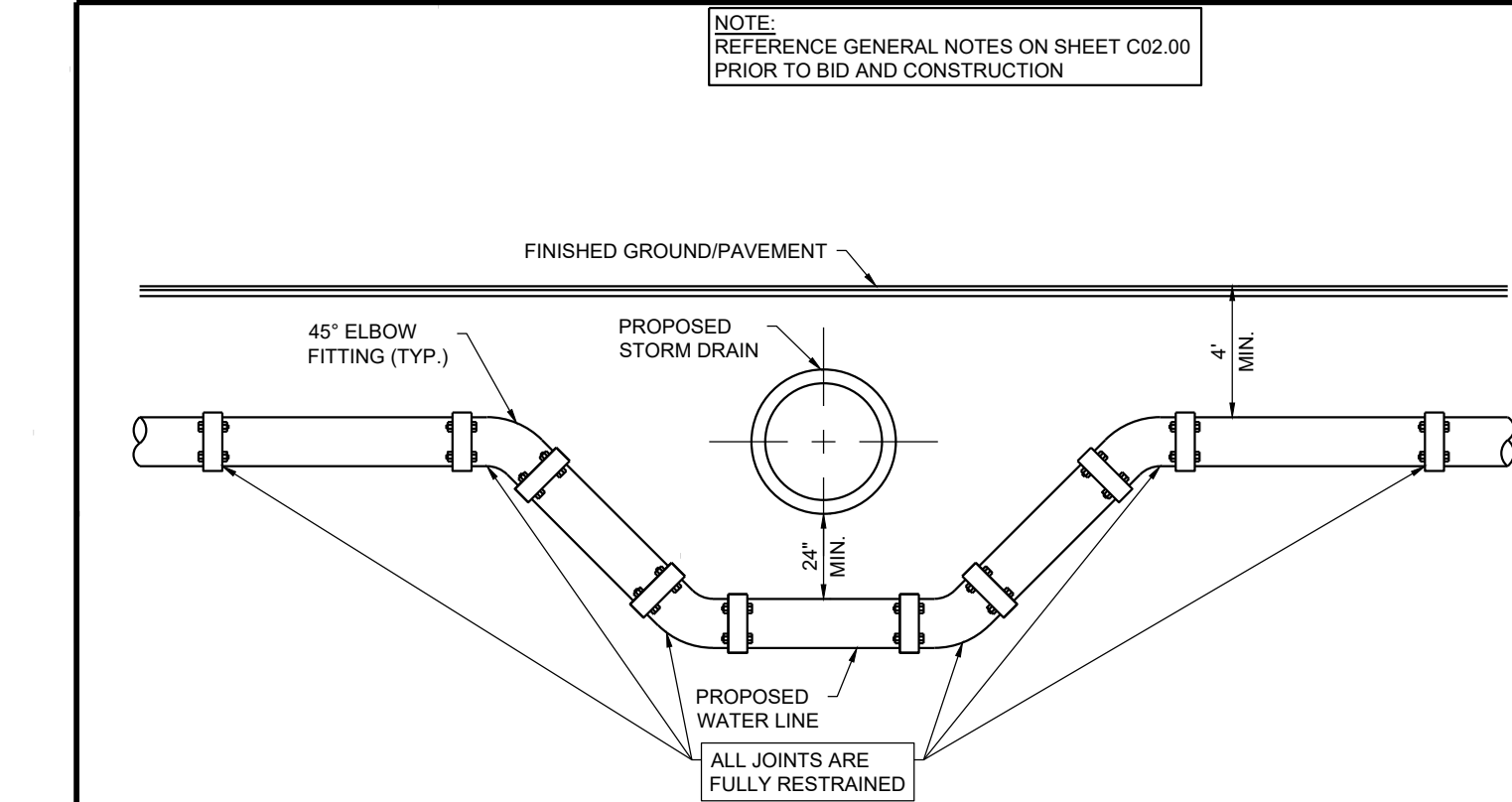
32653-BOERNE
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SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
DRAIN DETAILS

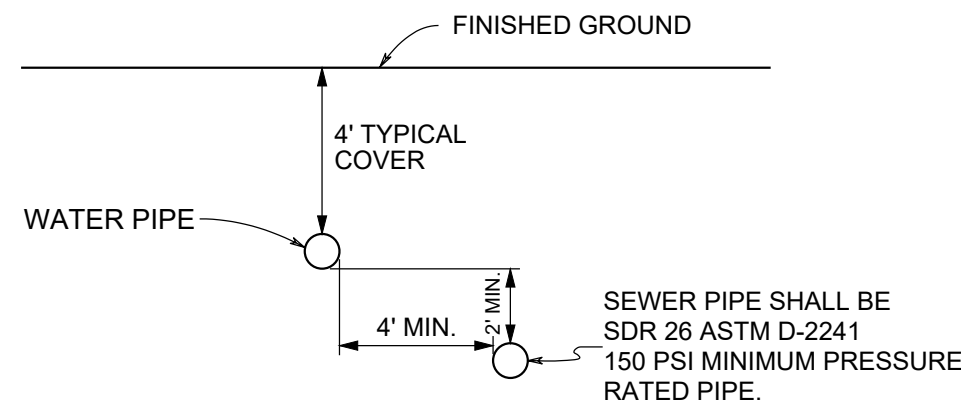
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2	01-11-2021	DLA	CHECKED
3	01-11-2021	DLA	DATE





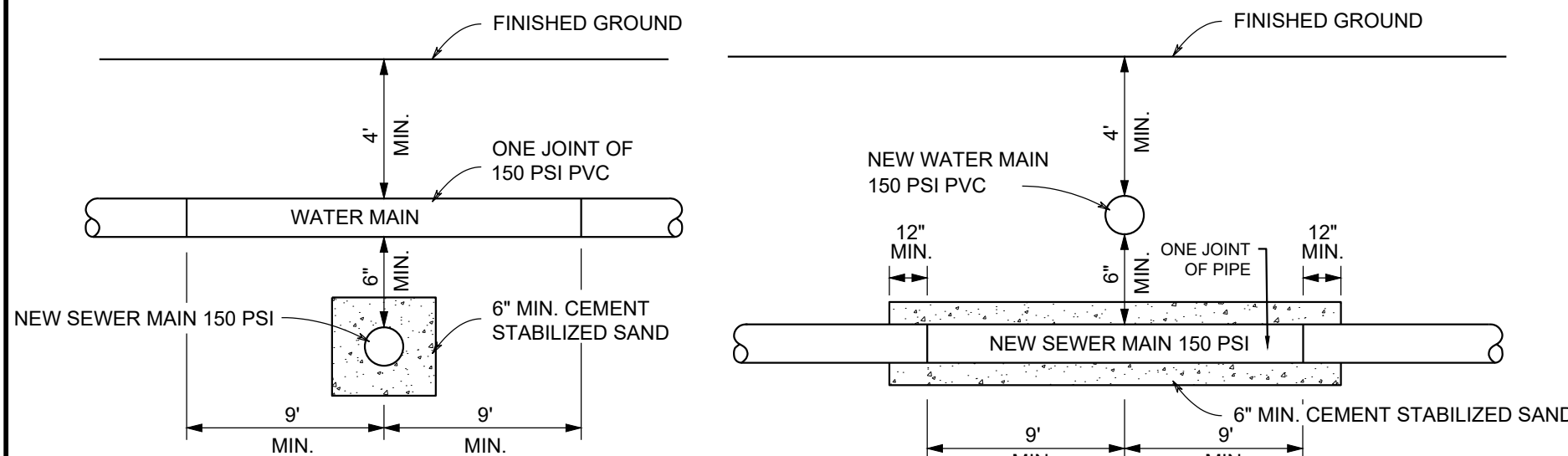
TYP. CROSSING DETAIL

N.T.S.



TYPICAL SANITARY SEWER/
WATER PARALLEL DETAIL

FOR PARALLEL WATER AND SEWER PIPES LOCATED CLOSER THAN 9'. SEPARATION DISTANCE AND CONSTRUCTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH 30 TAC 290.44 (e) AND 217.53 (d). THE PROPOSED MANHOLES SHALL BE ENCASED IN A MINIMUM OF 1' OF CEMENT STABILIZED SAND. THE CEMENT STABILIZED SAND SHALL INCLUDE 160 POUNDS OF CEMENT FOR EVERY CUBIC YARD OF SAND AND MUST EXTEND A MINIMUM OF 12" ABOVE THE SEWER PIPE.

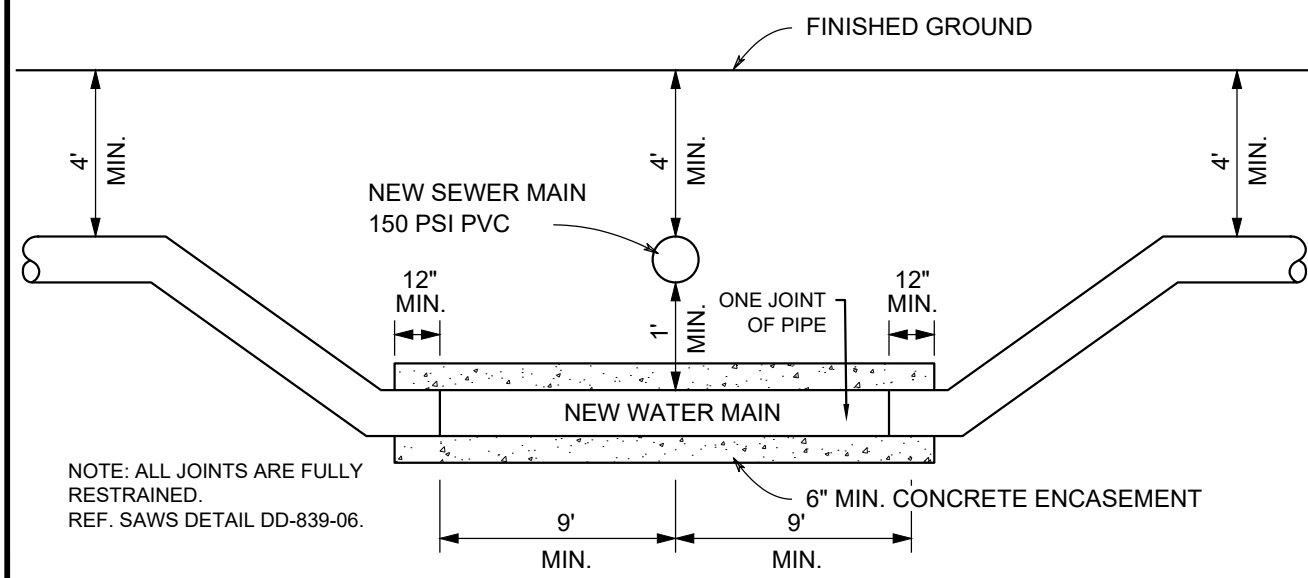


CROSSING DETAIL "A"

N.T.S.

NEW WATERLINE CROSSES 6" MINIMUM ABOVE A SEWER LINE

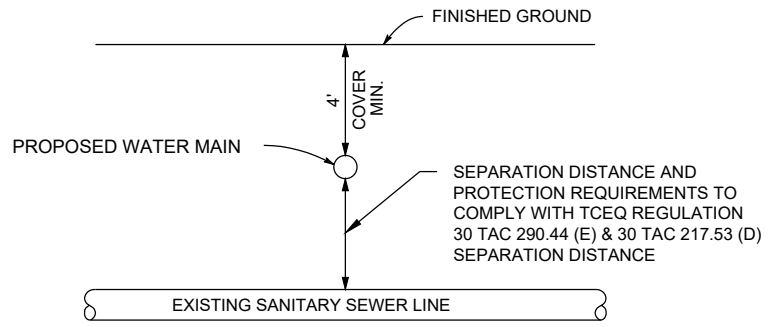
WATER AND SEWER CROSSINGS SHALL COMPLY WITH 30 TAC 290.44 (e) AND 30 TAC 217.53 (d). 290.44 (e)(4)(B)(I)(V) - WHERE A NEW POTABLE WATERLINE CROSSES A NEW, PRESSURE RATED WASTEWATER MAIN OR LATERAL, ONE SEGMENT OF THE WATERLINE PIPE SHALL BE CENTERED OVER AND SHALL BE PERPENDICULAR TO THE WASTEWATER LINE SUCH THAT THE JOINTS OF THE WATERLINE PIPE ARE EQUIDISTANT AND AT LEAST NINE FEET HORIZONTALLY FROM THE CENTER LINE OF THE WASTEWATER MAIN OR LATERAL. THE POTABLE WATERLINE SHALL BE AT LEAST SIX INCHES ABOVE THE WASTEWATER MAIN OR LATERAL. THE CROSSING SHALL BE CENTERED BETWEEN THE JOINTS OF THE WASTEWATER MAIN OR LATERAL. THE WASTEWATER PIPE SHALL HAVE A MINIMUM PRESSURE RATING OF AT LEAST 150 PSI. THE WASTEWATER MAIN OR LATERAL SHALL BE EMBEDDED IN CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 12 INCHES BEYOND THE JOINT ON EACH END. THE CEMENT STABILIZED SAND SHALL HAVE A MINIMUM OF 10% CEMENT PER CUBIC YARD OF CEMENT STABILIZED SAND MIXTURE, BASED ON LOOSE DRY WEIGHT VOLUME (AT LEAST 2.5 BAGS OF CEMENT PER CUBIC YARD OF MIXTURE). THE CEMENT STABILIZED SAND BEDDING SHALL BE A MINIMUM OF SIX INCHES ABOVE AND BELOW THE WASTEWATER MAIN OR LATERAL. BROWN COLORING IN CEMENT STABILIZED SAND FOR WASTEWATER MAIN OR LATERAL BEDDING IS REQUIRED FOR THE IDENTIFICATION OF PRESSURE RATED WASTEWATER MAINS DURING FUTURE CONSTRUCTION.



DETAIL "A"

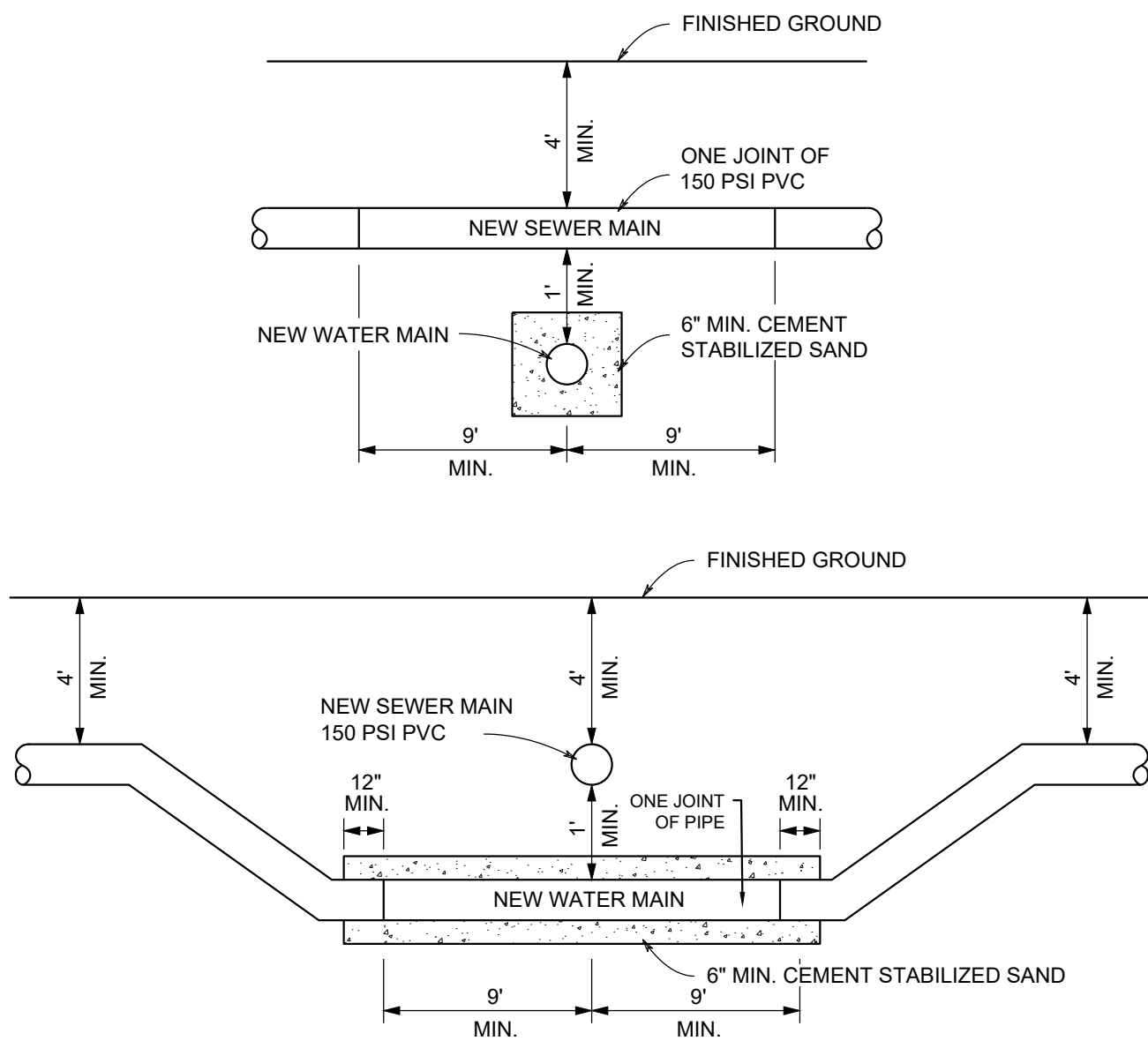
NEW WATER LINE CROSSING
UNDER A SEWER LINE

WATER AND SEWER CROSSINGS SHALL COMPLY WITH 30 TAC 290.44 (E) AND 30 TAC 217.53 (D). 290.44 (E)(4)(B) (III) - WHEN A NEW WATERLINE CROSSES UNDER A WASTEWATER MAIN OR LATERAL, THE WATERLINE SHALL BE ENCASED. THE WATER LINE SHALL BE EMBEDDED IN CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 12 INCHES BEYOND THE JOINT ON EACH END. THE CEMENT STABILIZED SAND SHALL HAVE A MINIMUM OF 10% CEMENT PER CUBIC YARD OF CEMENT STABILIZED SAND MIXTURE, BASED ON LOOSE DRY WEIGHT VOLUME (AT LEAST 2.5 BAGS OF CEMENT PER CUBIC YARD OF MIXTURE). THE CEMENT STABILIZED SAND BEDDING SHALL BE A MINIMUM OF SIX INCHES THICK AROUND THE PIPELINE. AN ABSOLUTE MINIMUM SEPARATION DISTANCE OF ONE FOOT BETWEEN THE WATERLINE AND THE WASTEWATER MAIN OR LATERAL SHALL BE PROVIDED. IN ADDITION, THE PROCEDURES IN §217.53(D) RELATING TO PIPE DESIGN MUST BE FOLLOWED. THE COLLECTION SYSTEM SHALL BE CONSTRUCTED OF PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI USING APPROPRIATE ADAPTERS. THE MINIMUM SEPARATION DISTANCE IS SIX INCHES BETWEEN OUTSIDE DIAMETERS OF THE PIPES SHALL BE MAINTAINED. THE COLLECTION SYSTEM PIPE JOINTS MUST BE LOCATED AS FAR AS POSSIBLE FROM AN INTERSECTION WITH A PUBLIC WATER SUPPLY LINE.



TYP. SEWER CROSSING

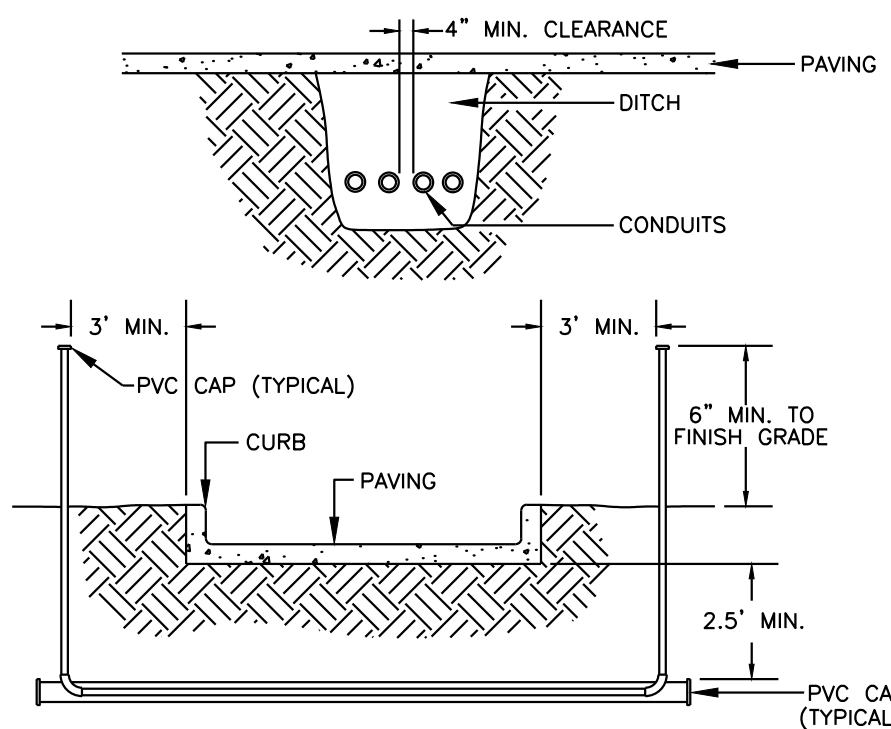
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DETAIL "A"

NEW WATER LINE CROSSING
UNDER A SEWER LINE

WATER AND SEWER CROSSINGS SHALL COMPLY WITH 30 TAC 290.44 (E) AND 30 TAC 217.53 (D). 290.44 (E)(4)(B) (III) - WHEN A NEW WATERLINE CROSSES UNDER A WASTEWATER MAIN OR LATERAL, THE WATERLINE SHALL BE ENCASED. THE WATER LINE SHALL BE EMBEDDED IN CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 12 INCHES BEYOND THE JOINT ON EACH END. THE CEMENT STABILIZED SAND SHALL HAVE A MINIMUM OF 10% CEMENT PER CUBIC YARD OF CEMENT STABILIZED SAND MIXTURE, BASED ON LOOSE DRY WEIGHT VOLUME (AT LEAST 2.5 BAGS OF CEMENT PER CUBIC YARD OF MIXTURE). THE CEMENT STABILIZED SAND BEDDING SHALL BE A MINIMUM OF SIX INCHES THICK AROUND THE PIPELINE. AN ABSOLUTE MINIMUM SEPARATION DISTANCE OF ONE FOOT BETWEEN THE WATERLINE AND THE WASTEWATER MAIN OR LATERAL SHALL BE PROVIDED. IN ADDITION, THE PROCEDURES IN §217.53(D) RELATING TO PIPE DESIGN MUST BE FOLLOWED. THE COLLECTION SYSTEM SHALL BE CONSTRUCTED OF PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI USING APPROPRIATE ADAPTERS. THE MINIMUM SEPARATION DISTANCE IS SIX INCHES BETWEEN OUTSIDE DIAMETERS OF THE PIPES SHALL BE MAINTAINED. THE COLLECTION SYSTEM PIPE JOINTS MUST BE LOCATED AS FAR AS POSSIBLE FROM AN INTERSECTION WITH A PUBLIC WATER SUPPLY LINE.

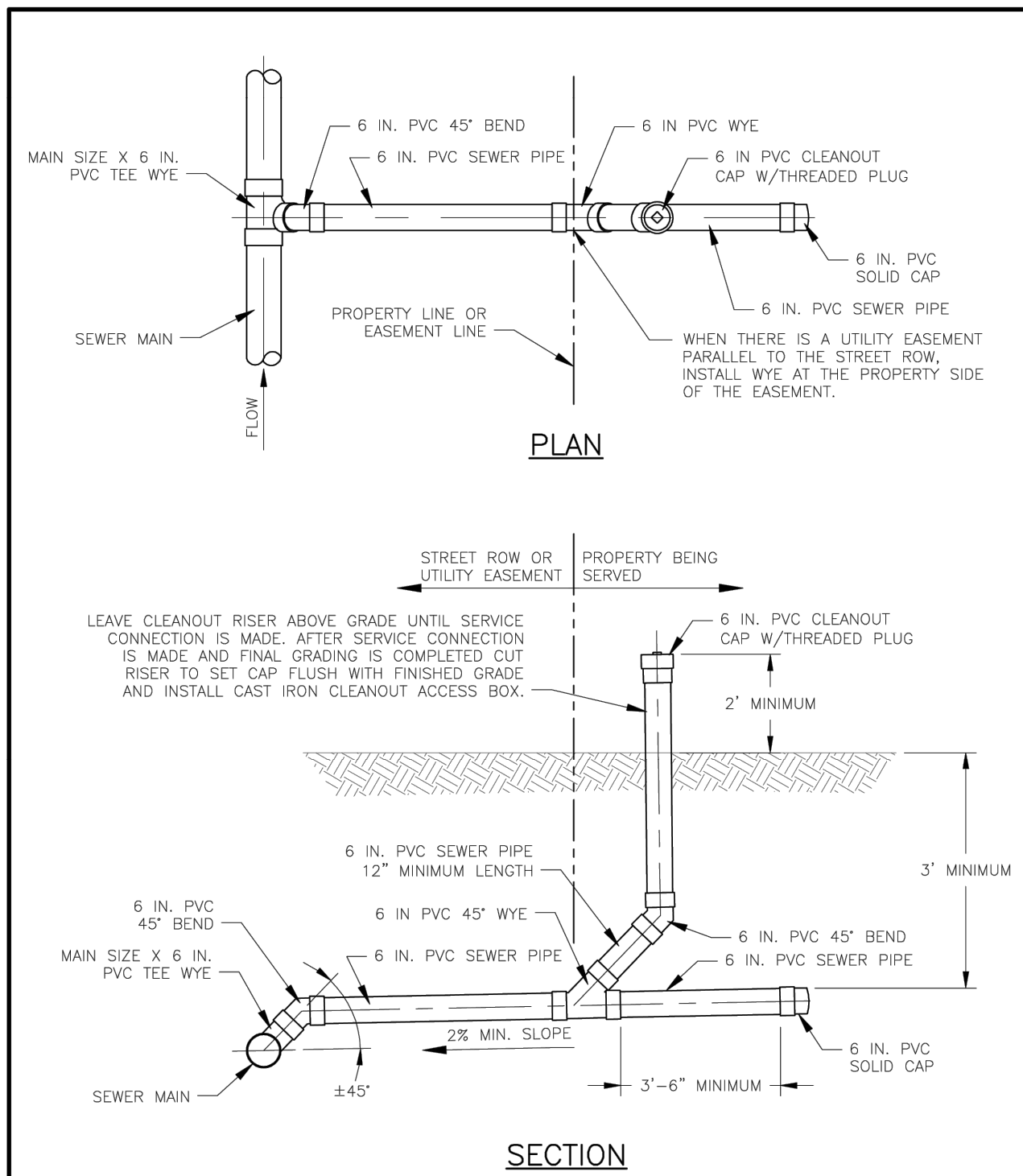


NOTES:

1. ALL PVC IRRIGATION CONDUITS TO BE CLASS 200 PIPE. ALL OTHER CONDUITS SHALL BE SDR35 PVC UNLESS OTHERWISE NOTED.
2. TOP OF CONDUIT TO BE PLACED 4.5' BELOW TOP OF PROPOSED CURB UNLESS OTHERWISE NOTED.
3. EXTEND CONDUIT A MINIMUM OF ONE FOOT PAST OUTSIDE EDGE OF SIDEWALK.
4. INSTALL A 90 DEGREE ELBOW ON EACH CONDUIT END AND ADD ADDITIONAL LENGTH OF SAME SIZE PIPE TO ENSURE PIPE EXTENDS ABOVE FINISH GRADE BY 2'-0" MINIMUM. DO NOT USE SOLVENT ON ELBOW JOINTS. CLOSE OFF ENDS OF OPEN PIPES WITH PVC CAP TO KEEP DEBRIS OUT.
5. COMPACT BACKFILL AROUND AND OVER CONDUIT TO PREVENT FUTURE SETTLEMENT. INITIAL BACKFILL SHALL BE SAND AND SHALL EXTEND TO A POINT 6-INCHES BELOW FINISH SUBGRADE OR LAWN/PLANTING AREAS.
6. WHERE THERE IS MORE THAN ONE CONDUIT, EXTEND THE SMALLER CONDUIT TO 24-INCHES MINIMUM ABOVE FINISH GRADE.
7. REFERENCE OPS DESIGN DRAWINGS FOR ELECTRICAL DUCT BANK AND MANHOLES
8. CONTRACTORS TO COORDINATE WITH OWNER AND COMMUNICATION SERVICE PROVIDERS PRIOR TO INSTALLATION OF COMMUNICATION CONDUITS.

TYP. CONDUIT DETAIL

N.T.S.

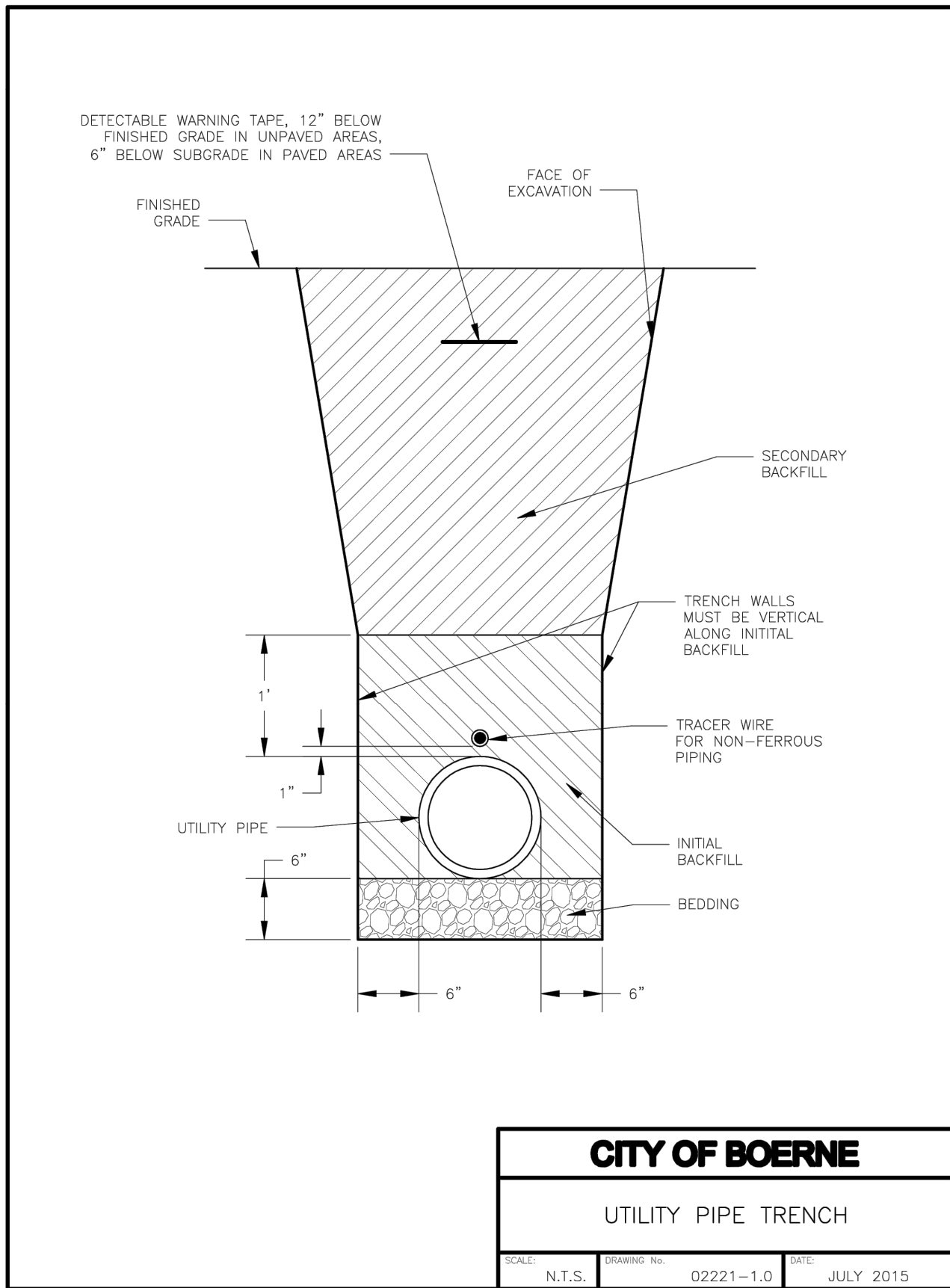


SECTION

CITY OF BOERNE

STANDARD SANITARY SEWER SERVICE
LATERAL

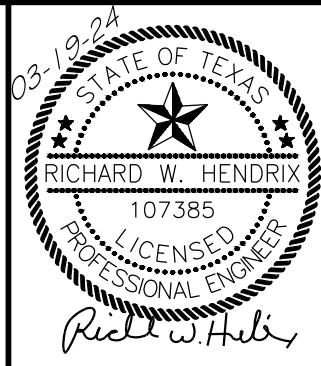
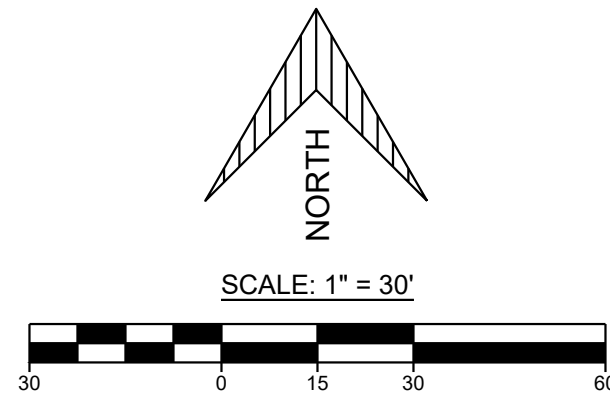
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CITY OF BOERNE

UTILITY PIPE TRENCH

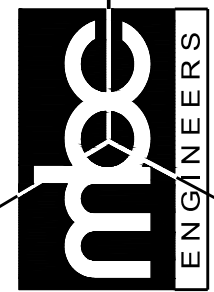
DATE: N.T.S. DRAWN BY: 02221-1.0 DATE: JULY 2015



PRIMARY CONTACT:
RICHARD HENDRIX, P.E.

MACINA • BOSE • COPELAND & ASSOC., INC.
CONSULTING ENGINEERS AND LAND SURVEYORS

1035 Central Parkway North, San Antonio, Texas 78232
(210) 545-1122 Fax (210) 545-9302 www.mcbengr.com
FIRM REGISTRATION NUMBER: T.B.P.E. F-784 & T.B.P.L.S. 10011700



SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
UTILITY DETAILS

REVISIONS:	DATE	BY	DESCRIPTION
No.			
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

PLAT ID# -
DESIGN - RH
DRAWN - RH
CHECKED - DLA
DATE - 01-11-2021

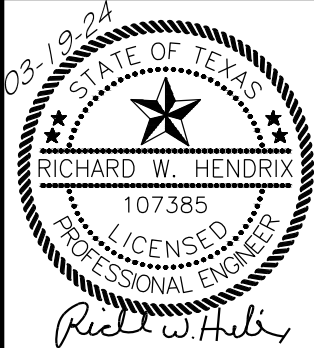
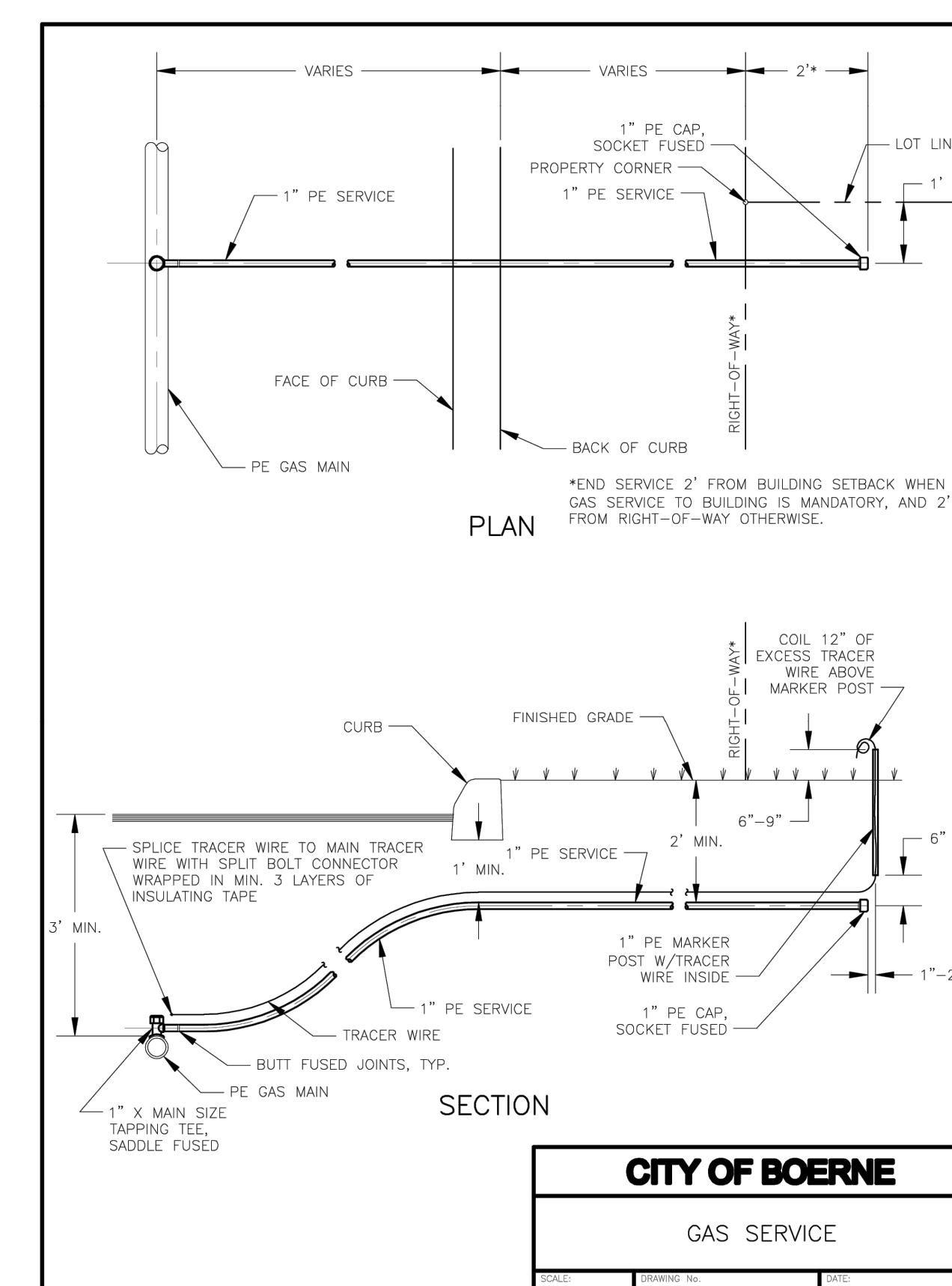
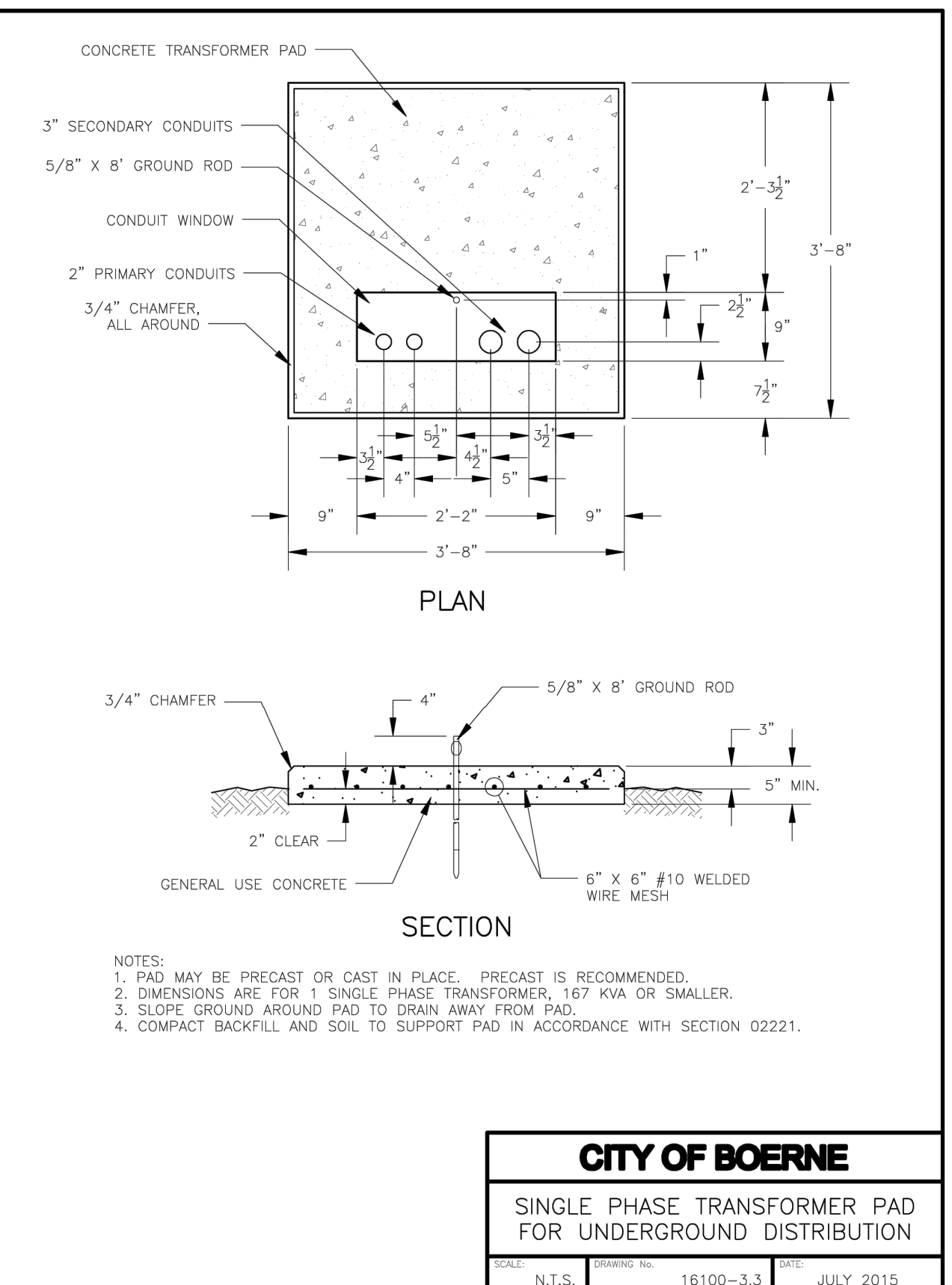
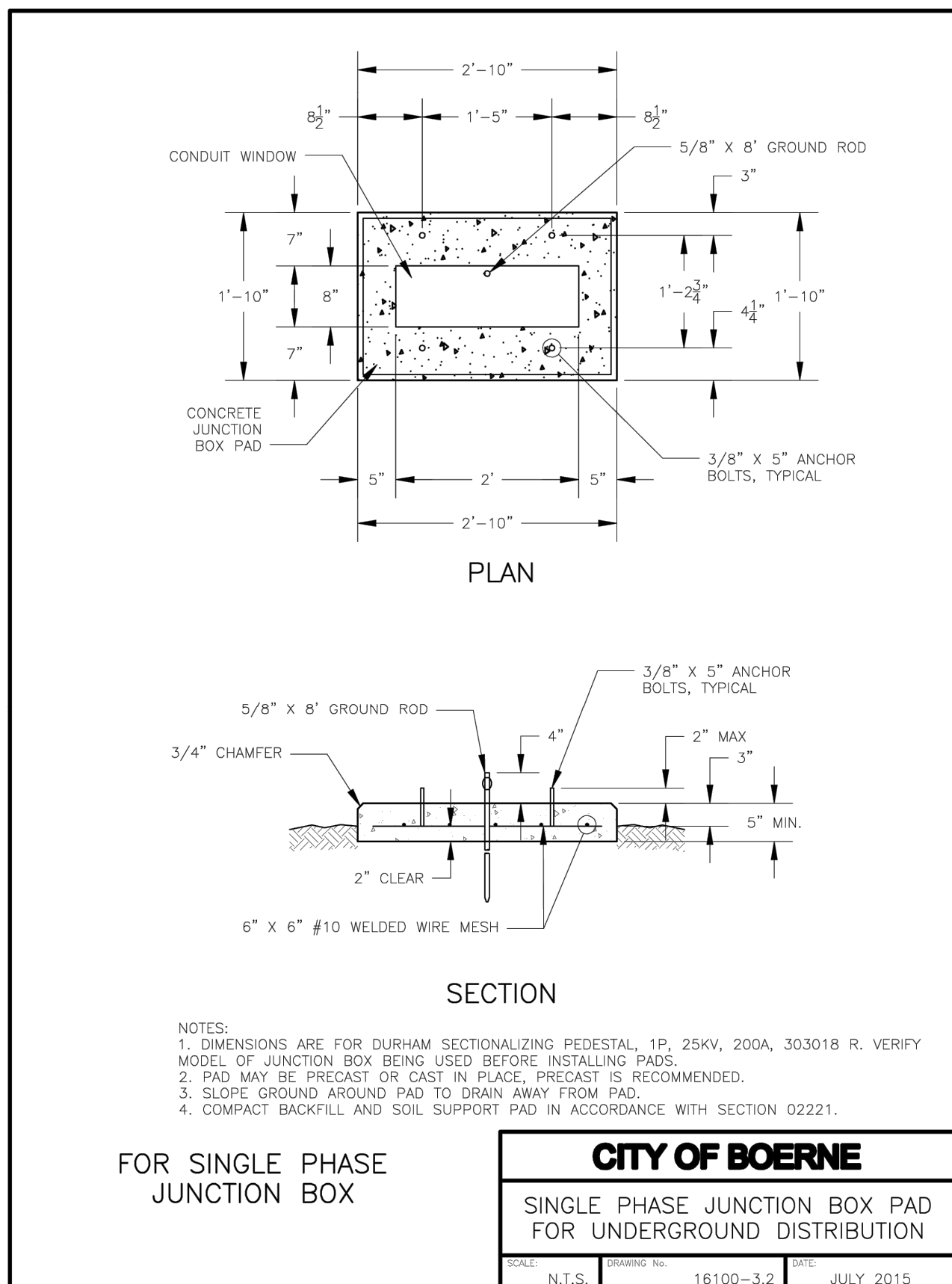
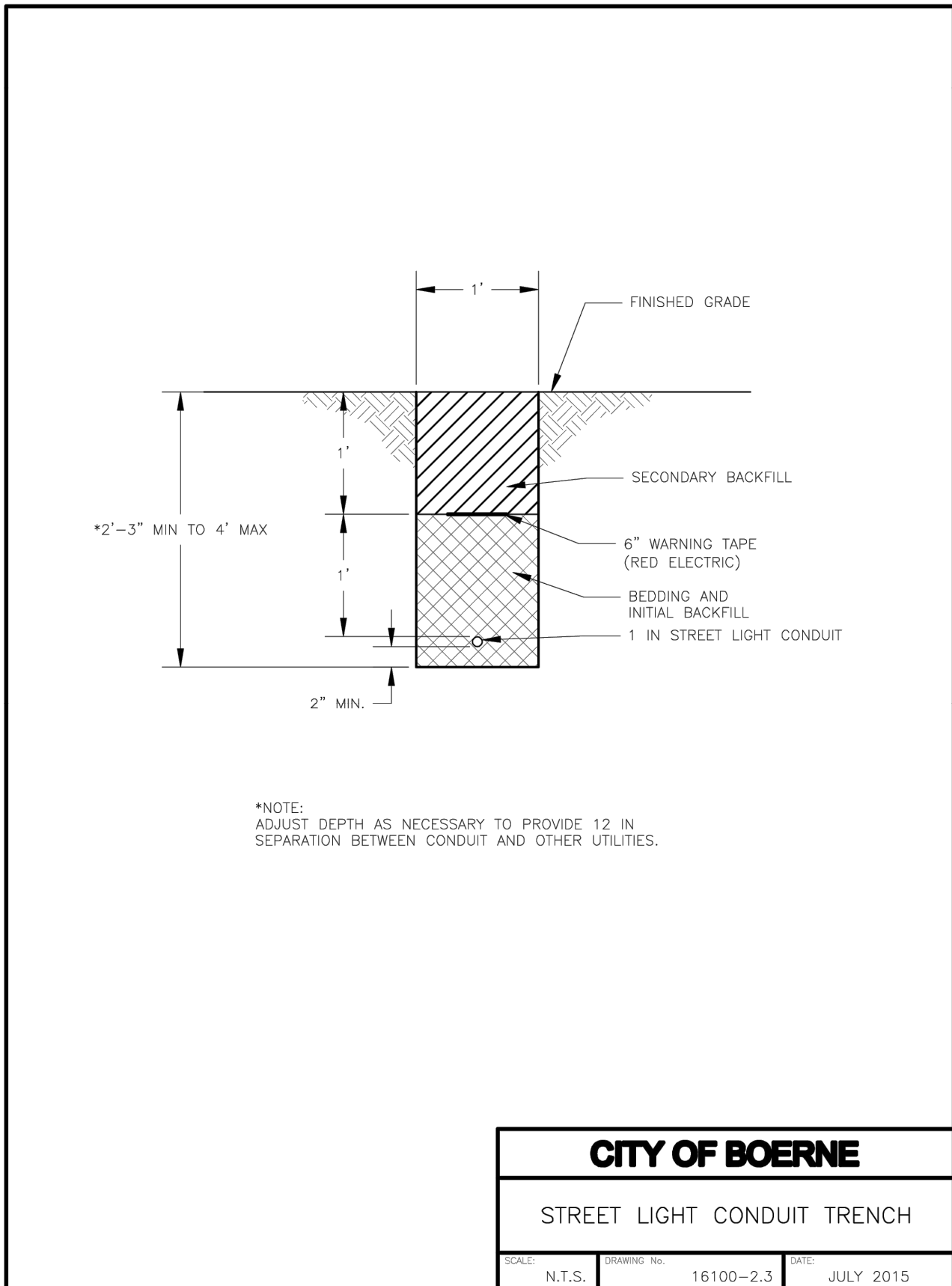
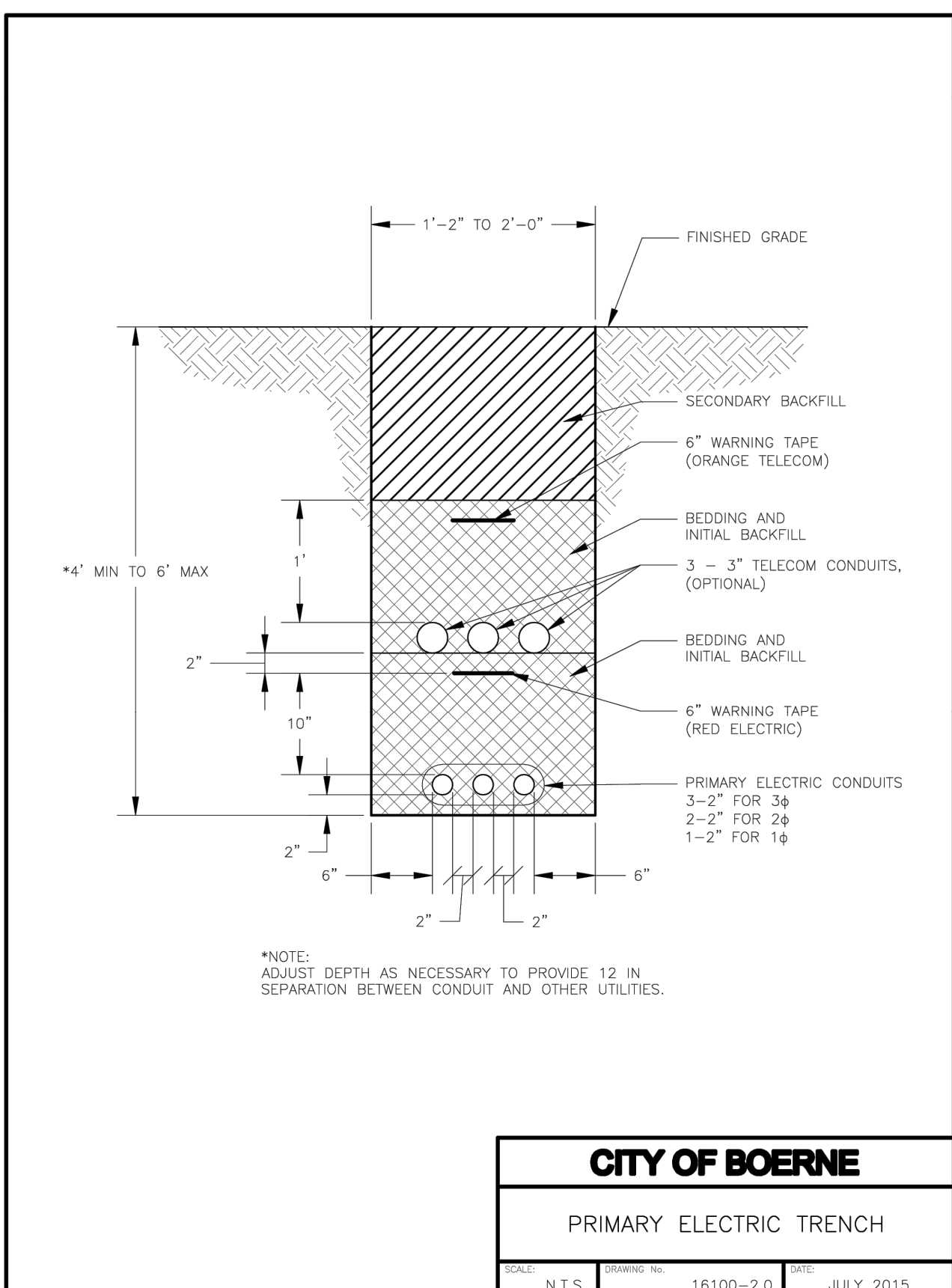
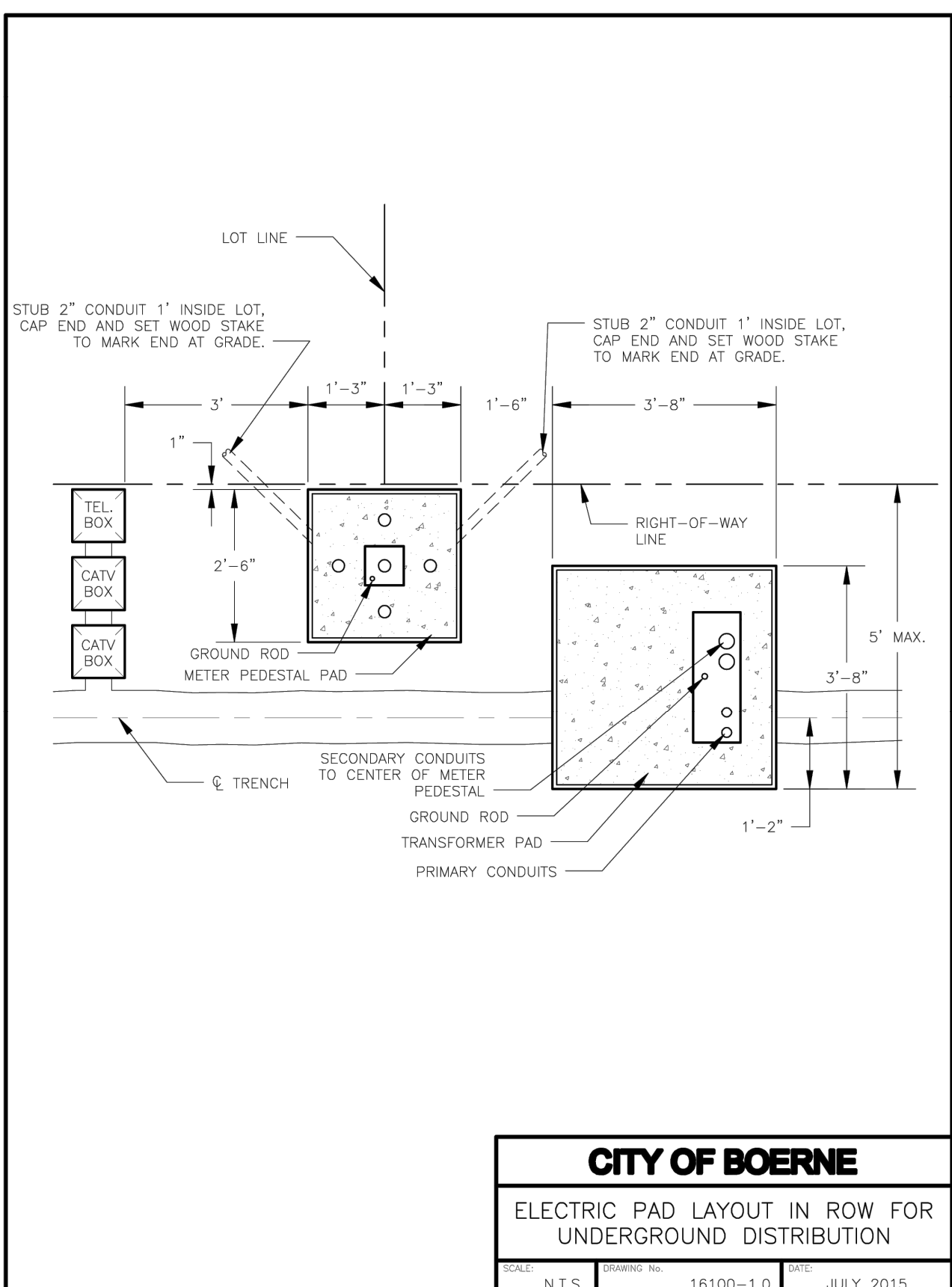
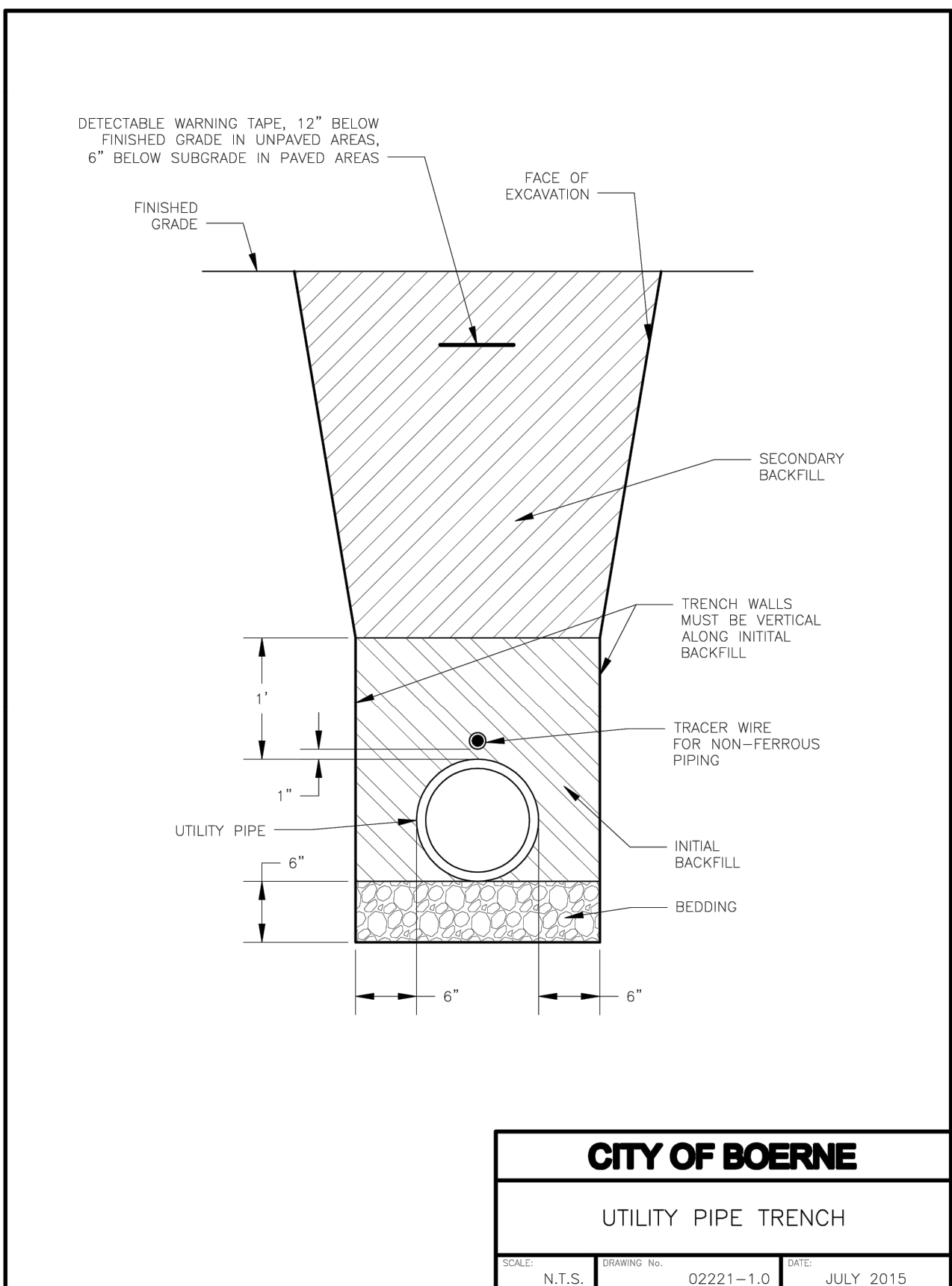
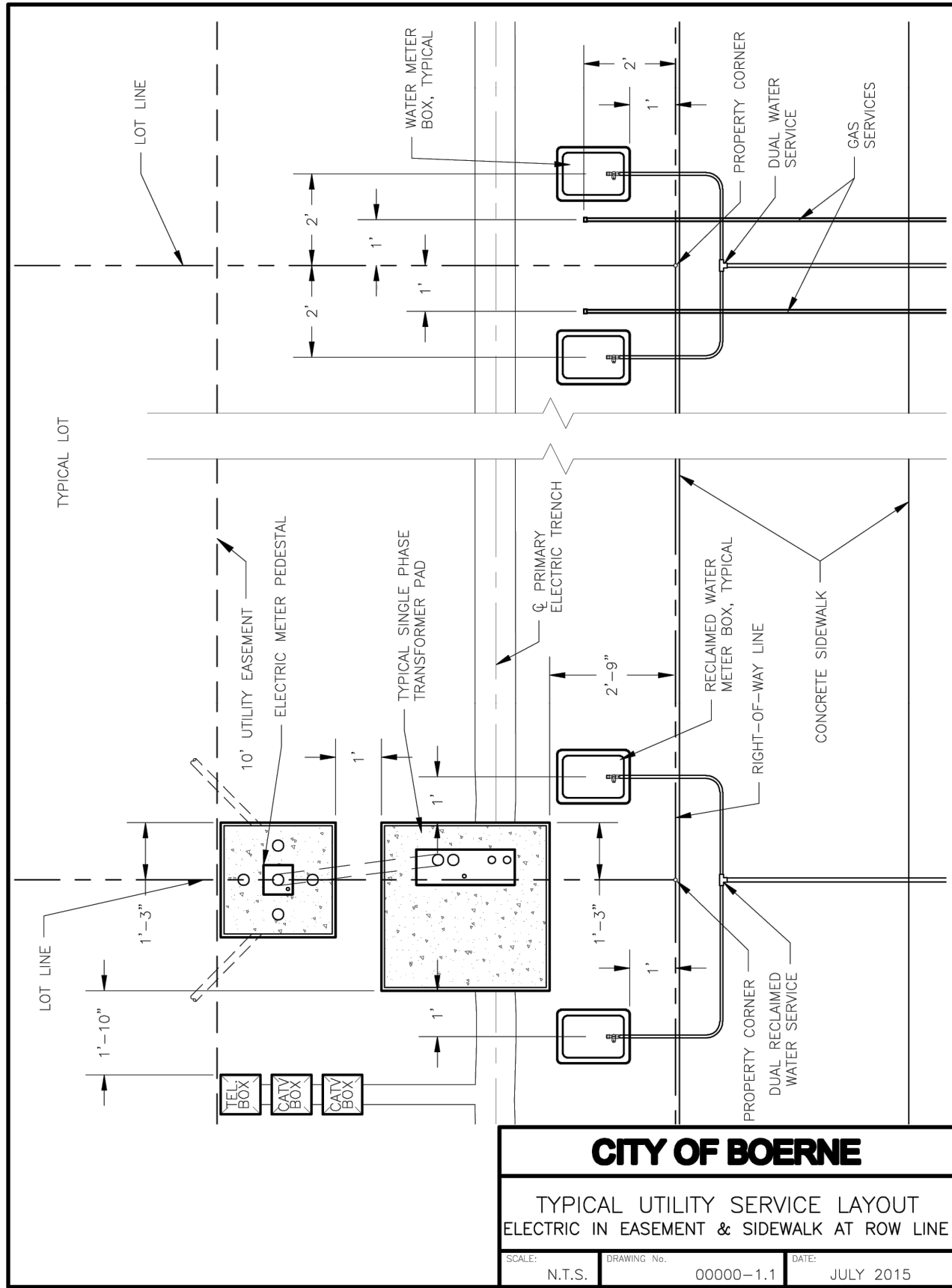
JOB NO.

32653-BOERNE

C10.01

ISSUED FOR PERMIT
03-19-2024

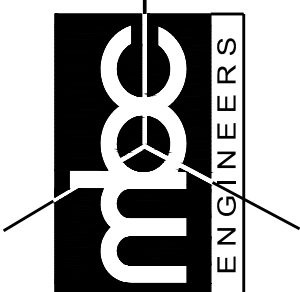
NOTE:
REFERENCE GENERAL NOTES ON SHEET C02.00
PRIOR TO BID AND CONSTRUCTION



PRIMARY CONTACT:
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SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
UTILITY DETAILS - 2

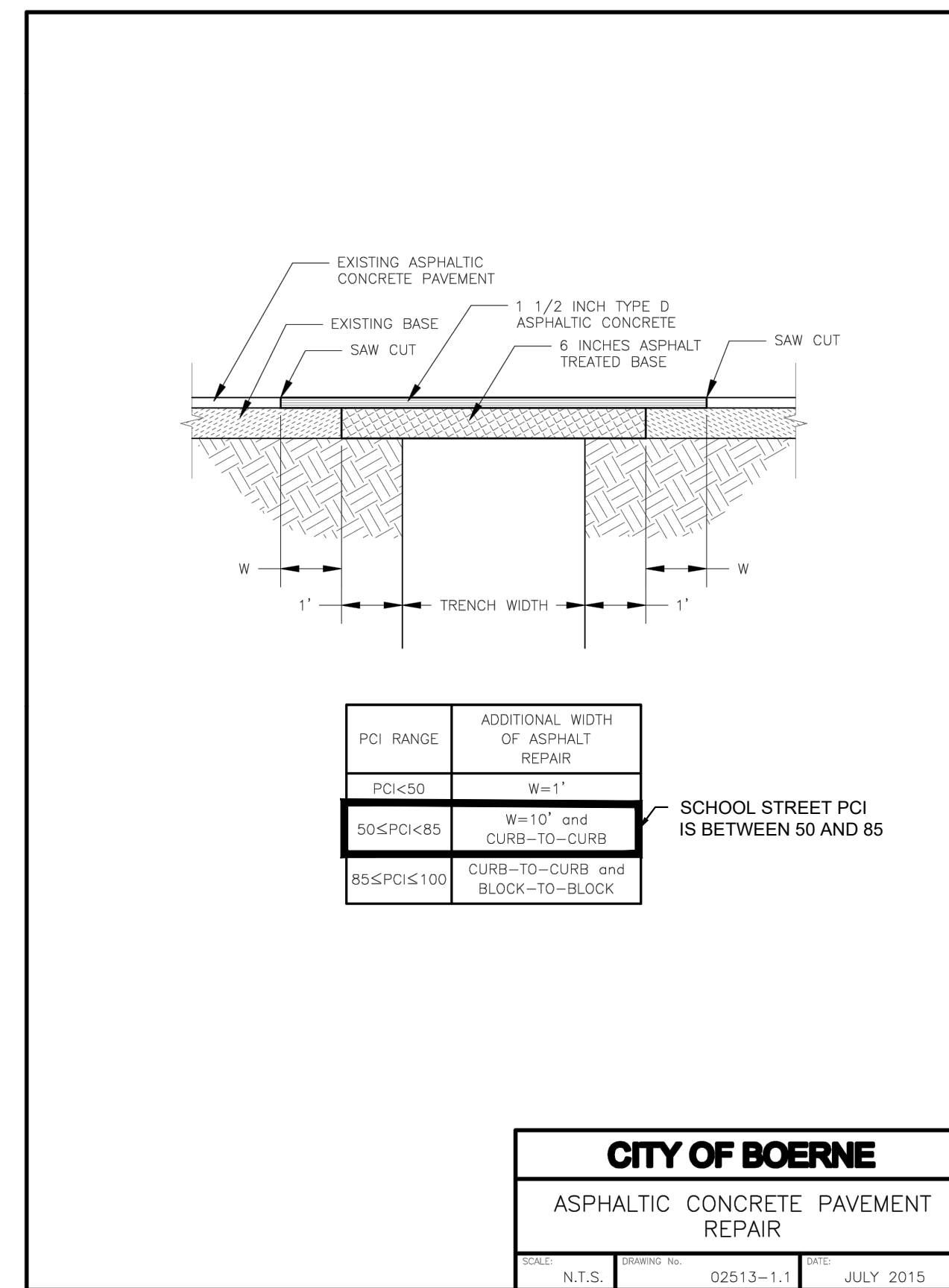
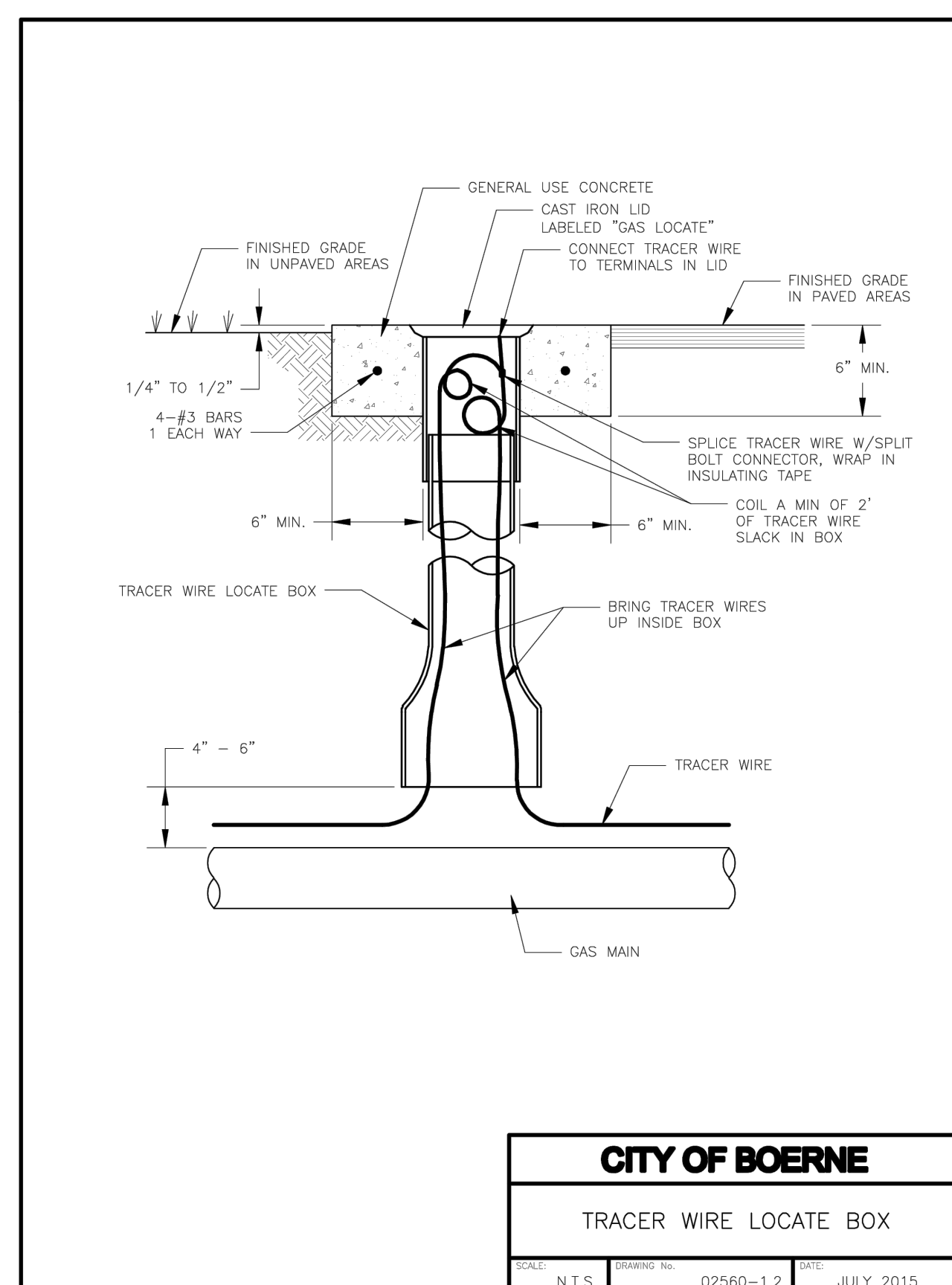
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03-19-2024

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DESIGN - RH
DRAWN - RH
CHECKED - DLA
DATE - 01-11-2021

JOB NO.
32653-BOERNE
C10.02

NOTE:
REFERENCE GENERAL NOTES ON SHEET C02.00
PRIOR TO BID AND CONSTRUCTION



Date: Mar 19, 2024, 11:07am User ID: tgonzalez Layout: UTILITY DETAILS - 3
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ISSUED FOR PERMIT
03-19-2024

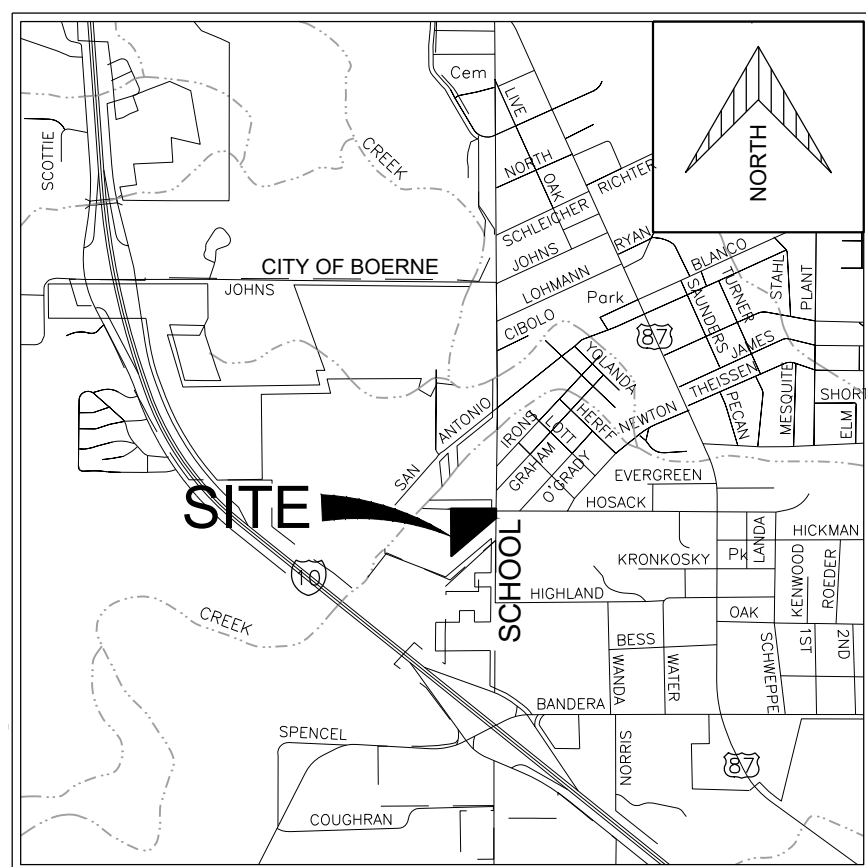


SCHOOL STREET RESIDENTIAL

502 S SCHOOL STREET

BOERNE, TEXAS

(PUBLIC SANITARY SEWER PLANS)



LOCATION MAP
NOT TO SCALE

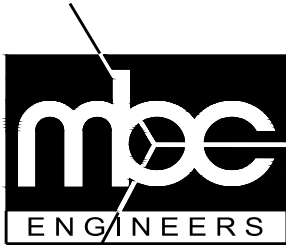
- MBC NOTES:
- SEWER PIPE WHERE WATER LINE CROSSES SHALL BE 160 P.S.I. AND MEET THE REQUIREMENTS OF ASTM D2241 WITH ONE 20' SECTION CENTERED AT WATER LINE.
 - SEWER PIPE (INCLUDING LATERALS) THAT CROSSES A WATER LINE WITH A SEPARATION DISTANCE OF LESS THAN 9 FEET SHALL BE 160 PSI AND MEET THE REQUIREMENTS OF ASTM D2241 WITH ONE 20' SECTION CENTERED AT THE WATER LINE IN ACCORDANCE WITH CITY OF BOERNE CONSTRUCTION CRITERIA FOR CONSTRUCTION OF SEWER PIPES (INCLUDING LATERALS) IN THE VICINITY OF WATER LINES. (NO SEPARATE PAY ITEM)
 - CONTRACTOR SHALL VERIFY EXISTING INVERT AND SIZE OF EXISTING SANITARY SEWER MAIN AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES FROM THAT SHOWN ON PLANS.
 - CONTRACTOR SHALL PROTECT ALL EXISTING FENCES. ANY FENCE DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE.
 - THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL UTILITIES AND DRAINAGE STRUCTURES WHETHER SHOWN ON THE PLANS OR NOT. THE CONTRACTOR SHALL UNCOVER EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY SIZE, GRADE, AND LOCATION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY DEVIATIONS FROM PLANS PRIOR TO BEGINNING CONSTRUCTION. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AT HIS EXPENSE.
 - BY WHATEVER MEANS NECESSARY, CONTRACTOR SHALL MAINTAIN UNINTERRUPTED SERVICE TO ALL EXISTING SEWER LINES THROUGHOUT CONSTRUCTION.
 - CONTRACTOR SHALL NOT REMOVE ANY EXISTING TREES.
 - IF THE GIVEN TOP OF MANHOLE ELEVATION DOES NOT AGREE ON ACTUAL GROUND SURFACE OR FINISH PAVEMENT, THE CONTRACTOR SHALL ADJUST ELEVATIONS SUCH THAT THE TOP OF MANHOLE SHALL BE 0.5' ABOVE EXISTING GROUND, OR FLUSH TO FINISH ASPHALT PAVEMENT.
 - PIPE TYPE DESIGNATIONS ARE SDR 26 UNLESS SPECIFIED OTHERWISE.
 - ALL MANHOLES SHALL HAVE CONCRETE RING ENCASEMENT AND WATER TIGHT RING AND COVER.
 - RECORD DRAWINGS - EACH MONTH AS THE WORK PROGRESSES THE CONTRACTOR SHALL FORMALLY SUBMIT TO DEVELOPER/ENGINEER, ALONG WITH THE MONTHLY PAYMENT APPLICATION, A SET OF RED LINE DRAWINGS NOTING WORK COMPLETED DURING THAT PERIOD. AS A CONDITION PRIOR TO ANY PROGRESS PAYMENT, RED LINE DRAWINGS SHALL REFLECT ANY AND ALL VARIATIONS TO THE PLANS AND REFLECT ALL ACTUAL DIMENSIONS NECESSARY FOR THE DEVELOPMENT OF AS BUILT DRAWINGS. AS A CONDITION PRIOR TO FINAL PAYMENT AND BEFORE THE FINAL WALK THROUGH, THE CONTRACTOR WHO HAS CONTROL OF THE WORK AND IS IN A POSITION TO KNOW HOW THE PROJECT WAS CONSTRUCTED, SHALL FORMALLY SUBMIT TO ENGINEER THE SET OF CLEARLY MARKED RED LINE DRAWINGS AND RELATED DOCUMENTS NOTING WORK COMPLETED AND ANY VARIATIONS FROM THE ORIGINAL PLAN AND SPECIFICATIONS FOR THE ENGINEERS USE IN PREPARING OWNER'S FINAL "RECORD DRAWINGS".
 - CONSTRUCTION OF THE SEWER LATERAL SHALL BE THE RESPONSIBILITY OF THE DEVELOPER.

NOTE
THE CONTRACTOR SHALL INCLUDE IN THE BID THE TRAFFIC AND PEDESTRIAN CONTROL PLANS, DESIGN, AND THE IMPLEMENTATION OF CONTROL DEVICES AS REQUIRED FOR CONSTRUCTION. CONTRACTOR SHALL SEQUENCE CONSTRUCTION SO THAT BUSINESSES HAVE SUITABLE MEANS OF VEHICULAR AND PEDESTRIAN ACCESS.

NOTE
CONTRACTOR IS REQUIRED TO SECURE NECESSARY PERMITS FROM THE CITY OF BOERNE PUBLIC WORKS TO WORK IN THE SCHOOL STREET RIGHT-OF-WAY.



PRIMARY CONTACT PERSON: RICHARD HENDRIX, P.E.



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CONSULTING ENGINEERS AND LAND SURVEYORS

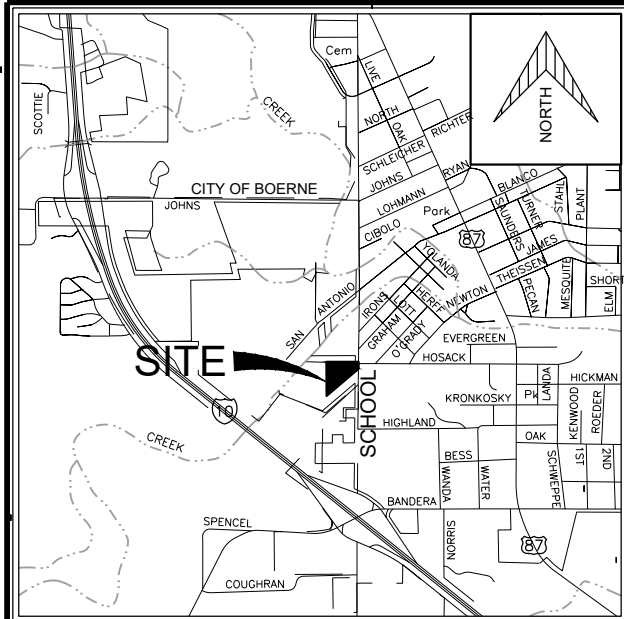
1035 Central Parkway North, San Antonio, Texas 78232
(210) 545-1122 Fax (210) 545-9302 www.mbcengineers.com
FIRM REGISTRATION NUMBER: T.B.P.E. F-784 & T.B.P.L.S. 10011700

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03-19-2024

PLAT ID# -
DESIGN RH
DRAWN RH
CHECKED DLA
DATE 01-11-2021

JOB NO.
32653-BOERNE
C11.00

Date: May 07, 2024, 3:29pm User: ID: rhendrix Layout: OVERALL SEWER PLAN
File: P:\Boerne\32653-502 S School St\Design\Design Civil\SEWER PLANS\sh-sewer plan-32653.dwg Layout name: OVERALL SEWER PLAN



NOTE:
REFERENCE GENERAL NOTES ON SHEET C02.00
PRIOR TO BID AND CONSTRUCTION

NOTE
SEWER PIPE SHALL BE SDR 26 ASTM D-2241
150 PSI MINIMUM PRESSURE RATED PIPE

NOTE
1. THE CONTRACTOR SHALL INCLUDE IN THE BID THE TRAFFIC AND PEDESTRIAN CONTROL PLANS, DESIGN, AND THE IMPLEMENTATION OF CONTROL DEVICES AS REQUIRED FOR CONSTRUCTION. CONTRACTOR SHALL SEQUENCE CONSTRUCTION SO THAT BUSINESSES HAVE SUITABLE MEANS OF VEHICULAR AND PEDESTRIAN ACCESS.
2. CONTRACTOR TO LOCATE AND FIELD VERIFY ALL EXISTING UTILITIES INCLUDING, BUT NOT LIMITED TO, WATER LINES, GAS LINES, SEWER LINES AND ELECTRIC LINES.
3. ALL ASPHALT DAMAGED WITH CONSTRUCTION SHALL BE SAW CUT STRAIGHT AND REPAIRED WITH 3" HMA TYPE C ASPHALT AND 10" OF ASPHALT TREATED BASE

VEGETATION NOTE
85% VEGETATION MUST BE ESTABLISH OF THE DISTURBED AREA ON THE SITE PRIOR TO REMOVAL OF TEMPORARY EROSION CONTROLS.

NOTE
THE CONTRACTOR SHALL INCLUDE IN THE BID THE TRAFFIC AND PEDESTRIAN CONTROL PLANS, DESIGN, AND THE IMPLEMENTATION OF CONTROL DEVICES AS REQUIRED FOR CONSTRUCTION. CONTRACTOR SHALL SEQUENCE CONSTRUCTION SO THAT BUSINESSES HAVE SUITABLE MEANS OF VEHICULAR AND PEDESTRIAN ACCESS.

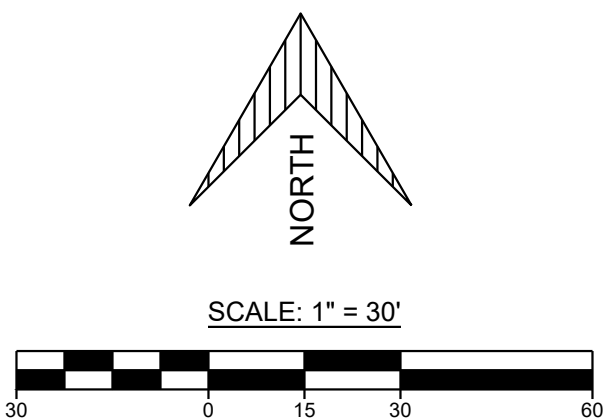
NOTE
CONTRACTOR IS REQUIRED TO SECURE NECESSARY PERMITS FROM THE CITY OF BOERNE PUBLIC WORKS TO WORK IN THE SCHOOL STREET RIGHT-OF-WAY.

NOTE:
CONTRACTOR TO LOCATE AND FIELD VERIFY ALL EXISTING UTILITIES INCLUDING, BUT NOT LIMITED TO, WATER LINES, GAS LINES, SEWER LINES AND ELECTRIC LINES.

UNPLATTED
IVA JULIA CANNON
(VOLUME 1215, PAGE 366
DEED PLAT RECORDS OF
KENDALL COUNTY)

Line #	Bearing	Length
L1	S 00°02'30" W	116.84'

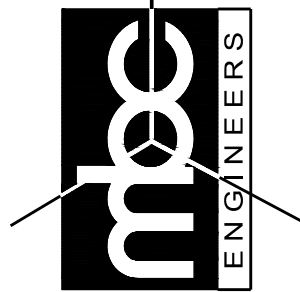
TRENCH EXCAVATION SAFETY PROTECTION
CONTRACTOR AND/OR CONTRACTORS INDEPENDENTLY RETAINED EMPLOYEE OR STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY EQUIPMENT CONSULTANT, IF ANY, SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN ORDER TO IMPLEMENT CONTRACTORS TRENCH EXCAVATION SAFETY PROTECTION SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTORS IMPLEMENTATION OF THESE SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM, OSHA STANDARDS FOR TRENCH EXCAVATIONS SPECIFICALLY, CONTRACTOR AND/OR CONTRACTORS INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.



LEGEND	
---SD---	EXISTING STORM DRAIN
---SS---	EXISTING SANITARY SEWER LINE
---W---	EXISTING WATER LINE
---G---	EXISTING GAS LINE
---OT---	EXISTING OVERHEAD TELEPHONE
---UT---	EXISTING UNDERGROUND TELEPHONE
---OHE---	EXISTING OVERHEAD ELECTRIC
---UE---	EXISTING UNDERGROUND ELECTRIC
---DW---	PROPOSED DOMESTIC WATER LINE
---W---	PROPOSED WATER LINE
---I---	PROPOSED IRRIGATION LINE
---SS---	PROPOSED SANITARY SEWER LINE
---SD---	PROPOSED STORM DRAIN
---G---	PROPOSED GAS LINE
---F---	PROPOSED FIRE LINE
---T---	THRUST BLOCKING
---E---	EXISTING ELECTRIC METER
---C---	EXISTING CLEAN-OUT
---P---	PROPOSED CLEAN-OUT
---V---	EXISTING WATER VALVE
---W---	PROPOSED WATER VALVE
---W---	EXISTING WATER METER
---W---	PROPOSED WATER METER
---H---	EXISTING FIRE HYDRANT
---H---	PROPOSED FIRE HYDRANT
---C---	PROPOSED FIRE DEPARTMENT CONNECTION
---C---	PROPOSED REMOTE FIRE DEPARTMENT CONNECTION
---L---	EXISTING LIGHT POLE
---P---	EXISTING POWER POLE
---M---	EXISTING MANHOLE
---M---	PROPOSED MANHOLE
---G---	EXISTING GRATE
---G---	PROPOSED GRATE
---T---	EXISTING TRAFFIC LIGHT
---G---	EXISTING GAS METER
---G---	PROPOSED GAS METER
---G---	EXISTING GAS VALVE
---G---	PROPOSED GAS VALVE
---M---	EXISTING TELEPHONE MANHOLE
---A---	EXISTING ANCHOR

PRIMARY CONTACT:
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FIRM REGISTRATION NUMBER: T.B.P.E. F-784 & T.B.P.L.S. 10011700



SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
OVERALL SEWER PLAN

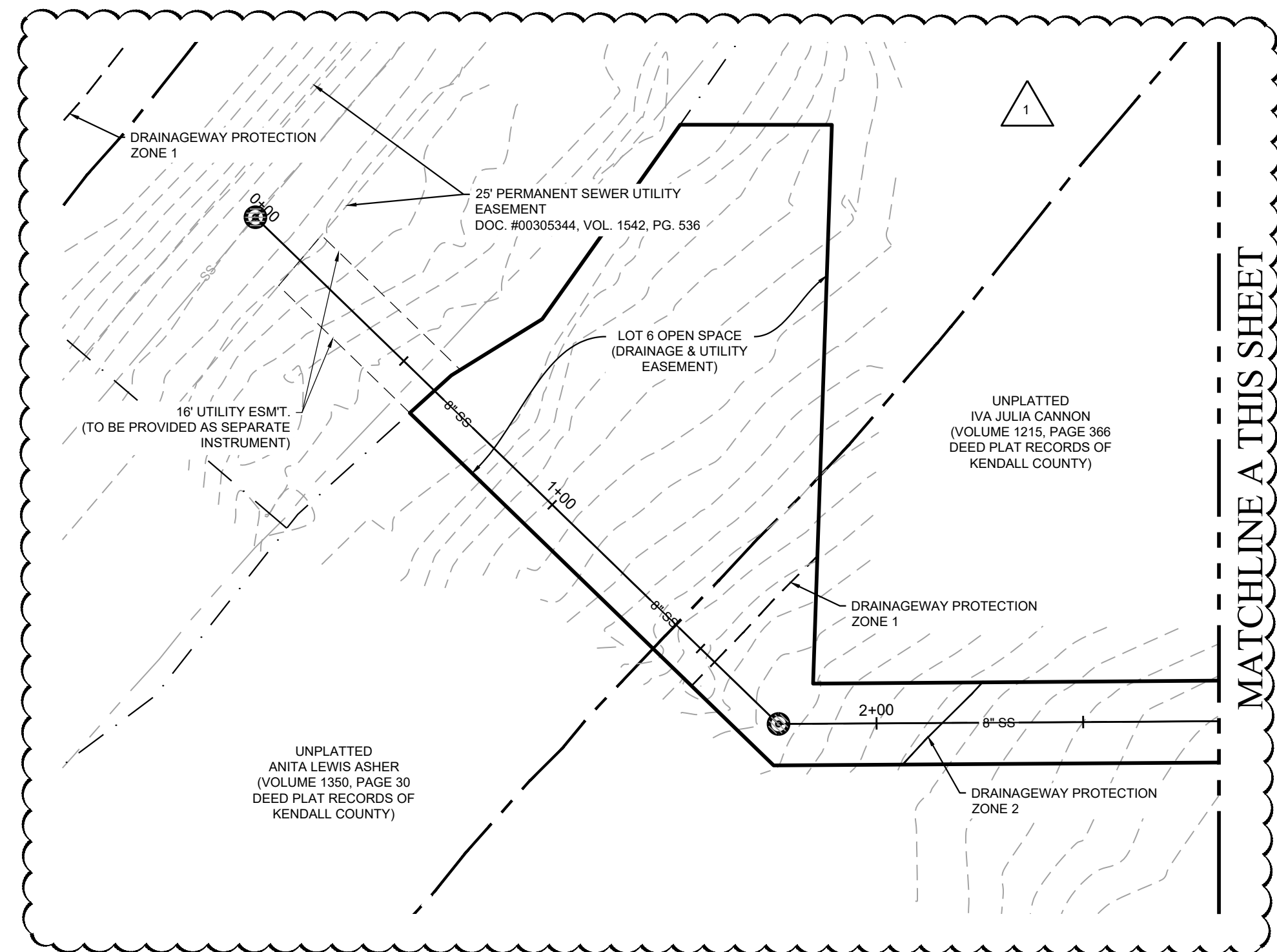
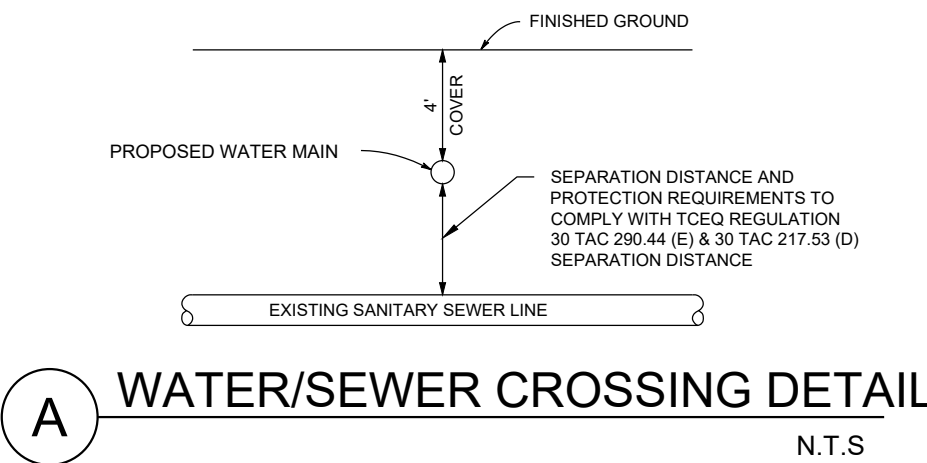
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	2	05/07/2024	CITY SEWER COMMENTS	RWH

DESIGN	RH
DRAWN	RH
CHECKED	DLA
DATE	01-11-2021

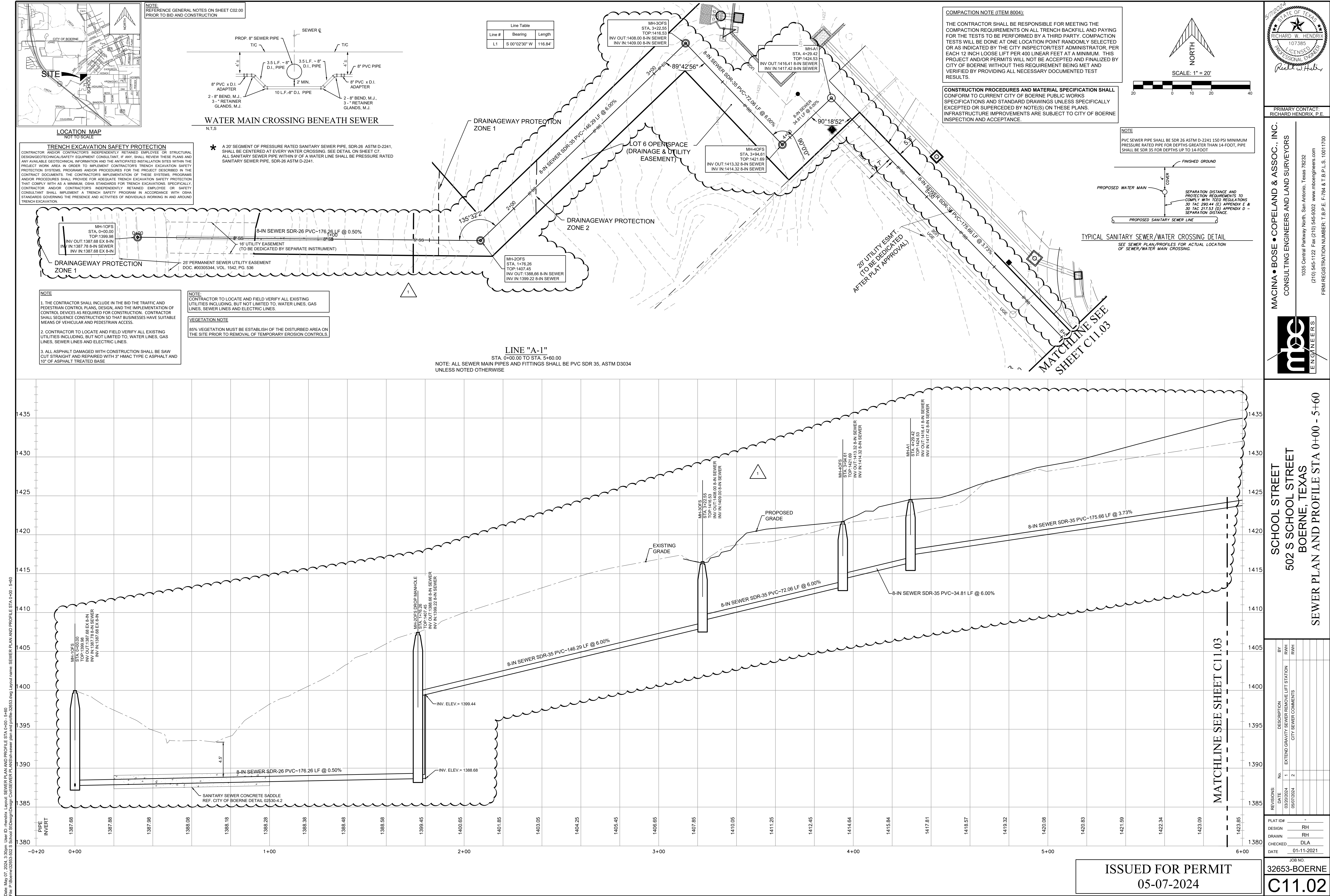
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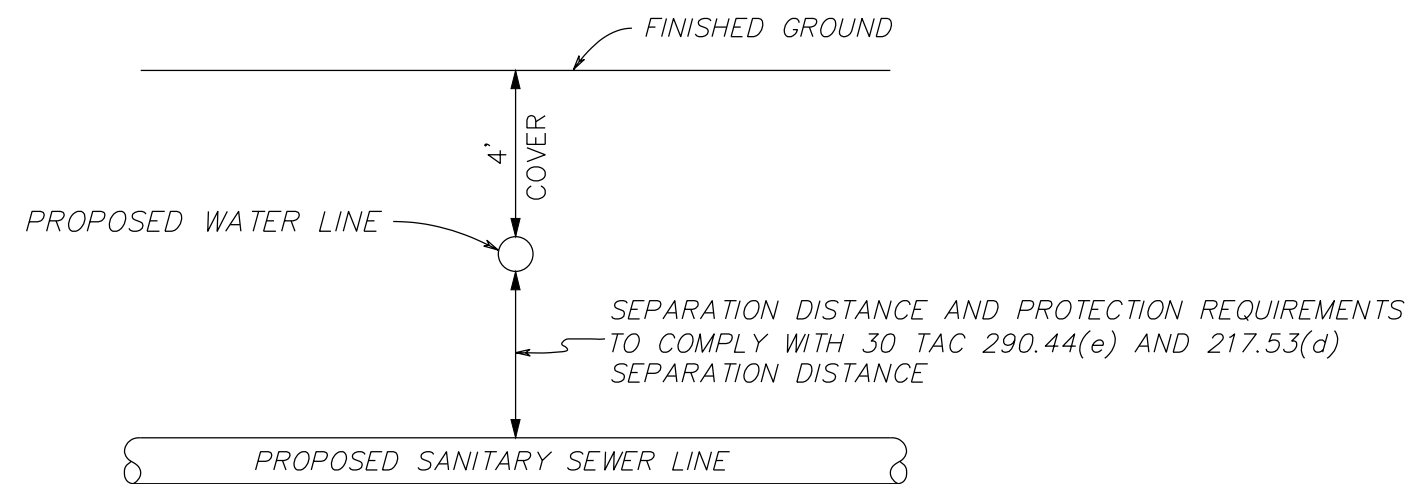
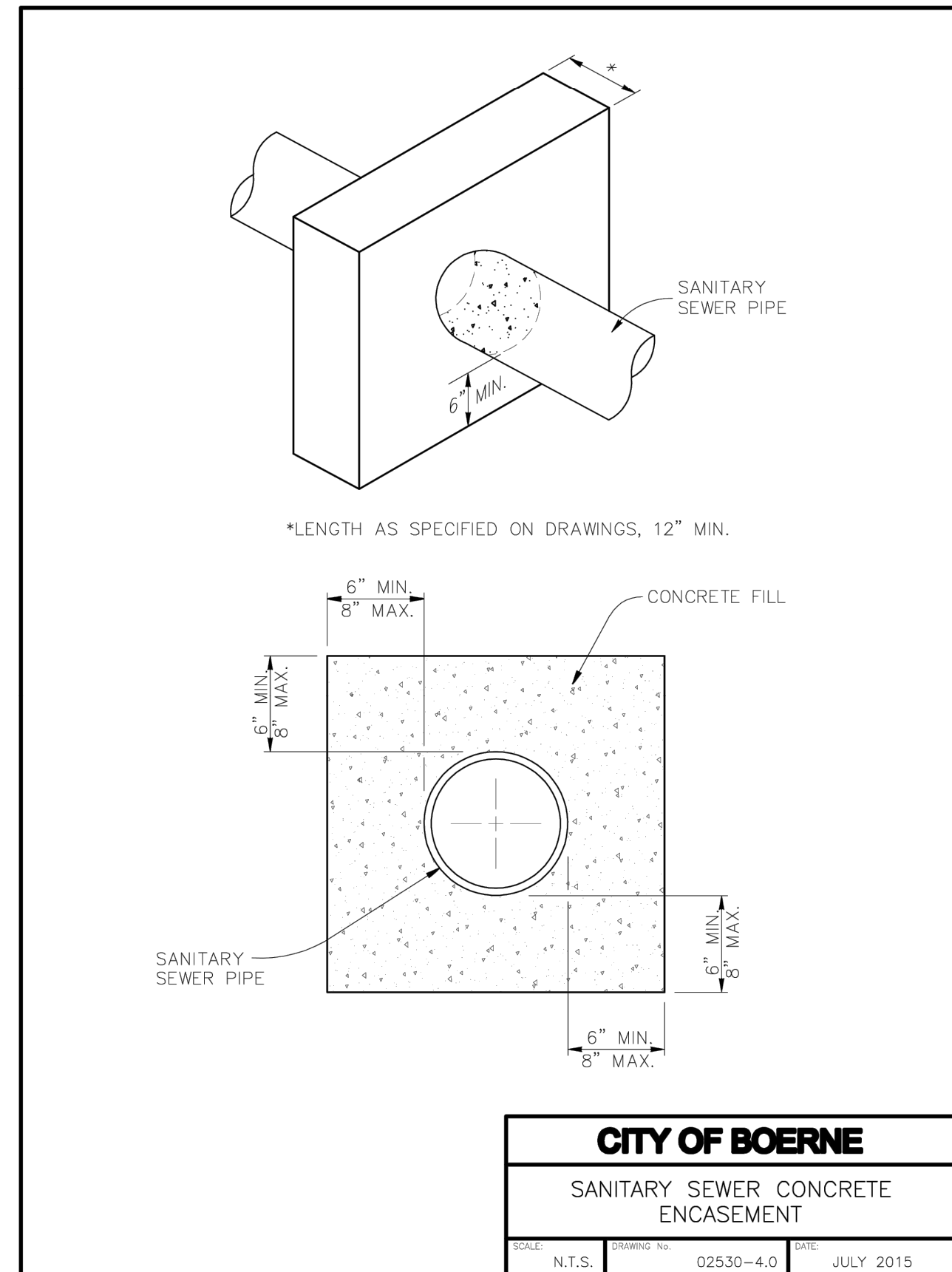
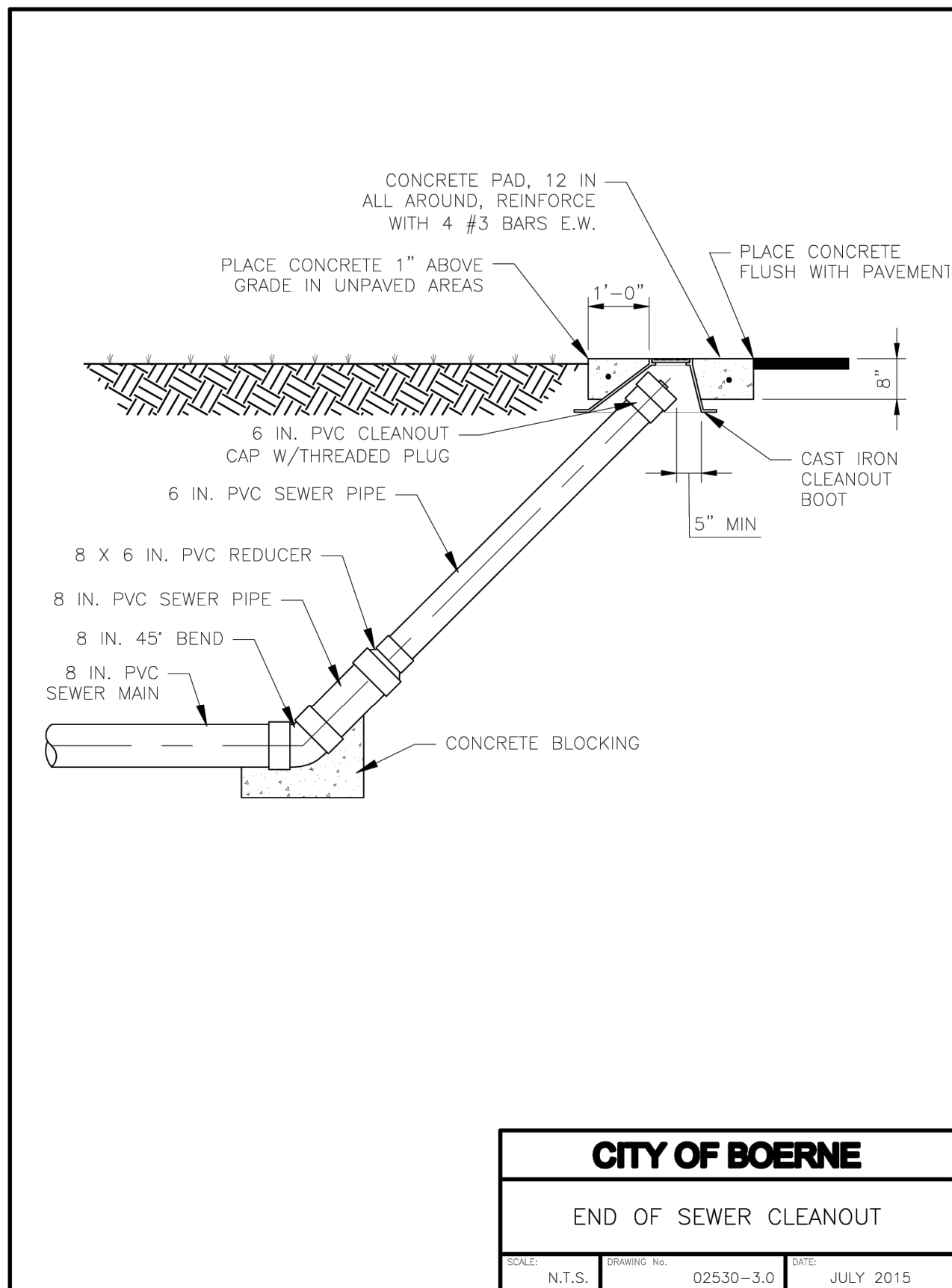
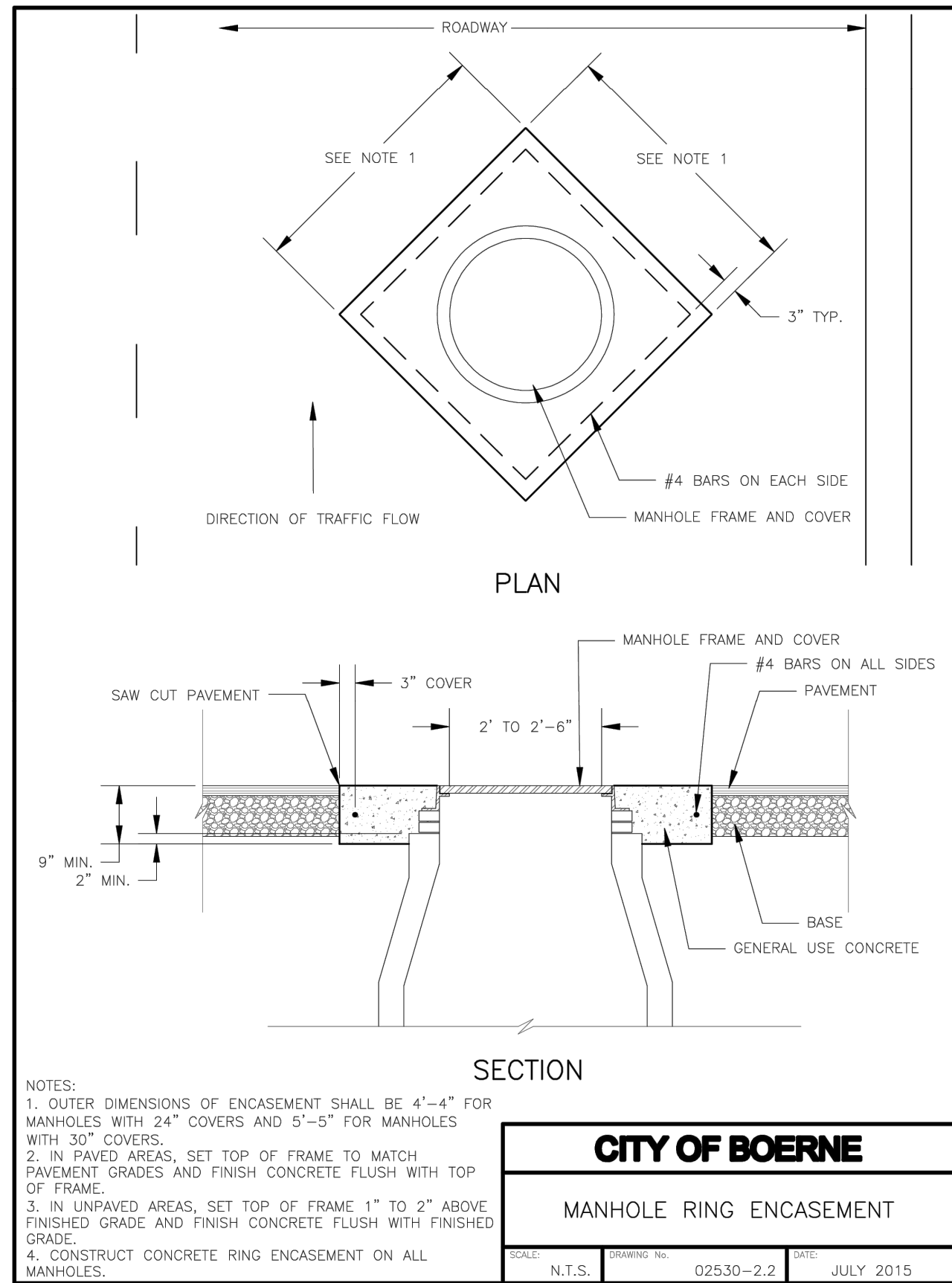
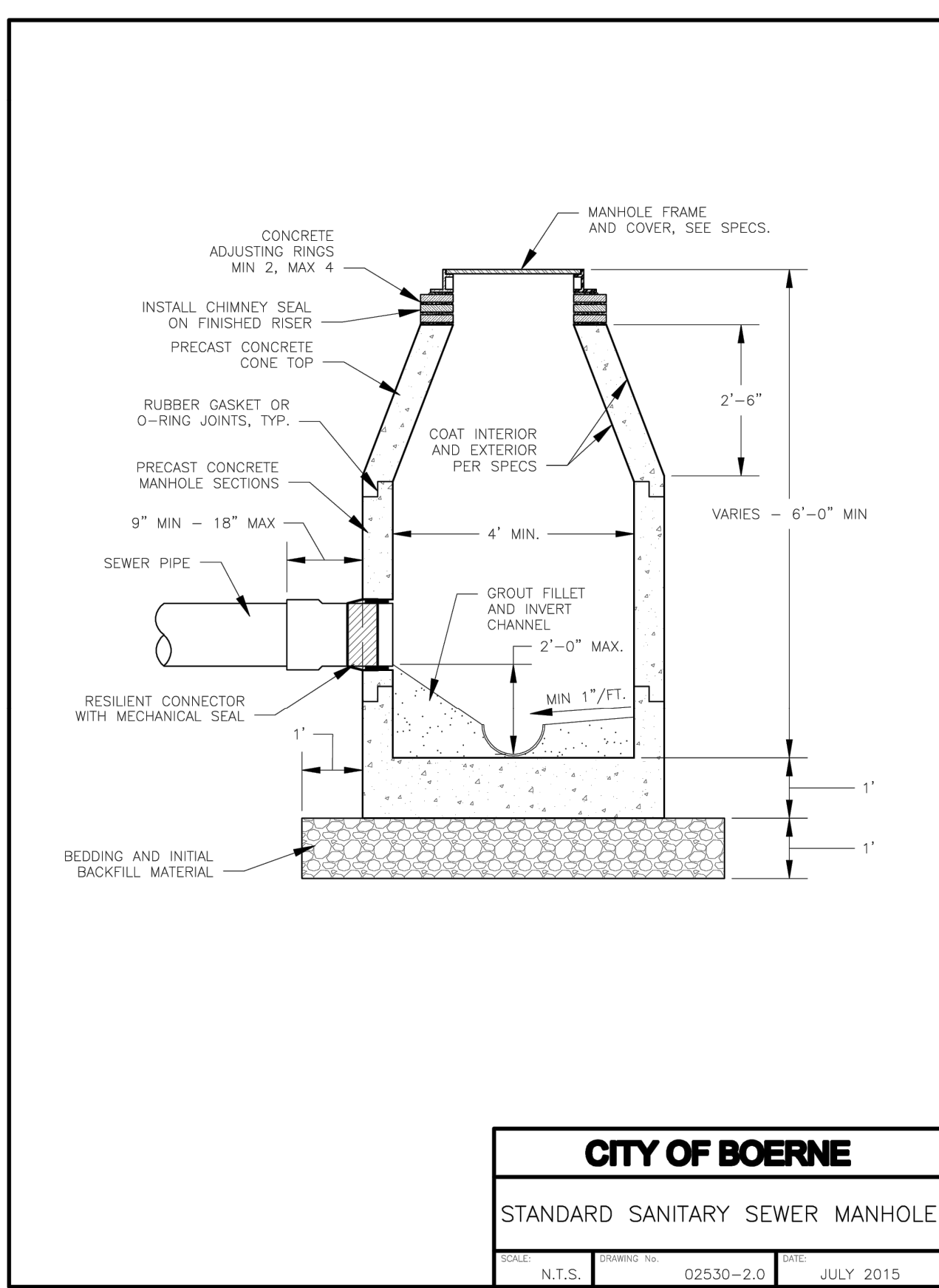
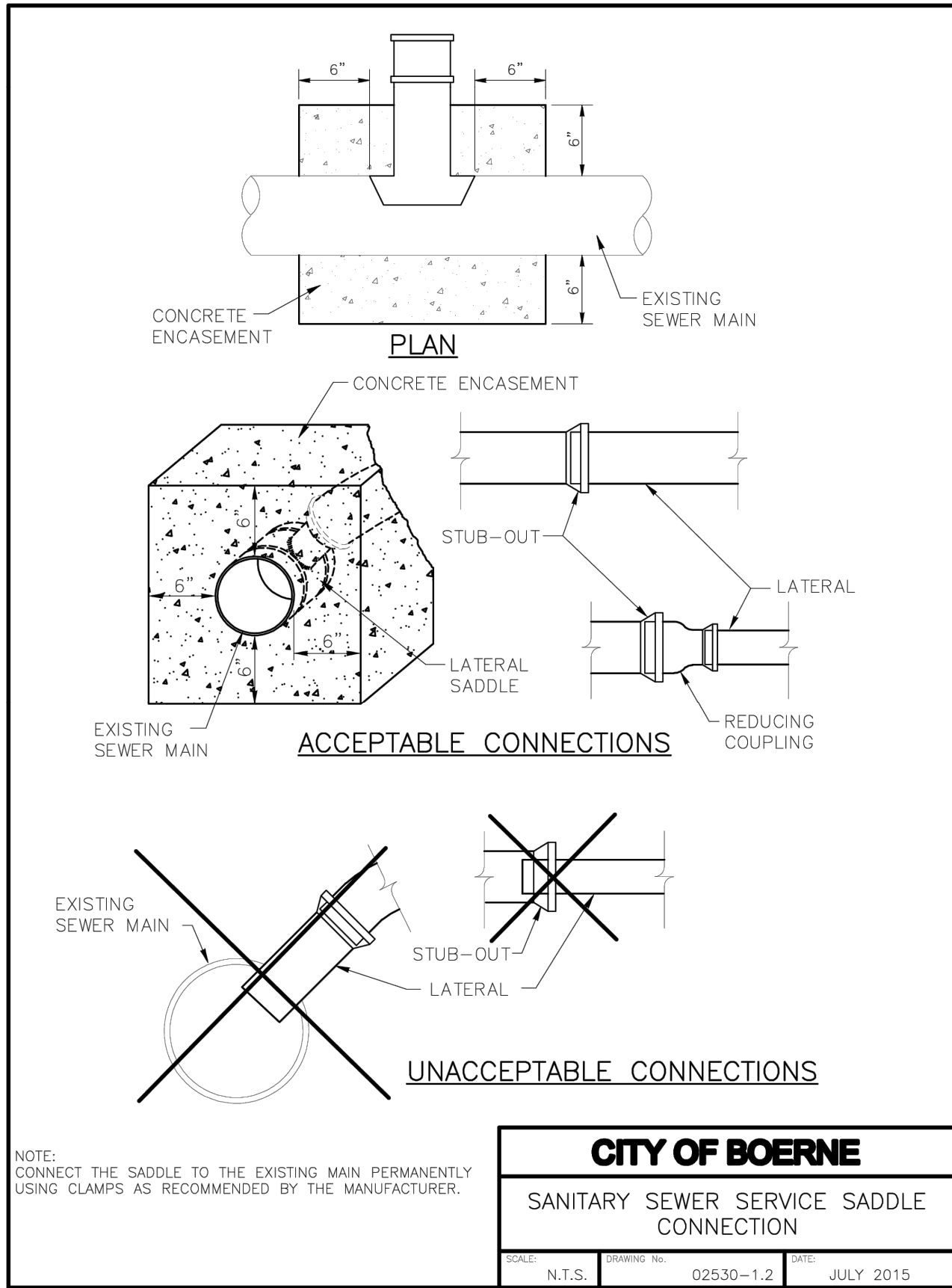
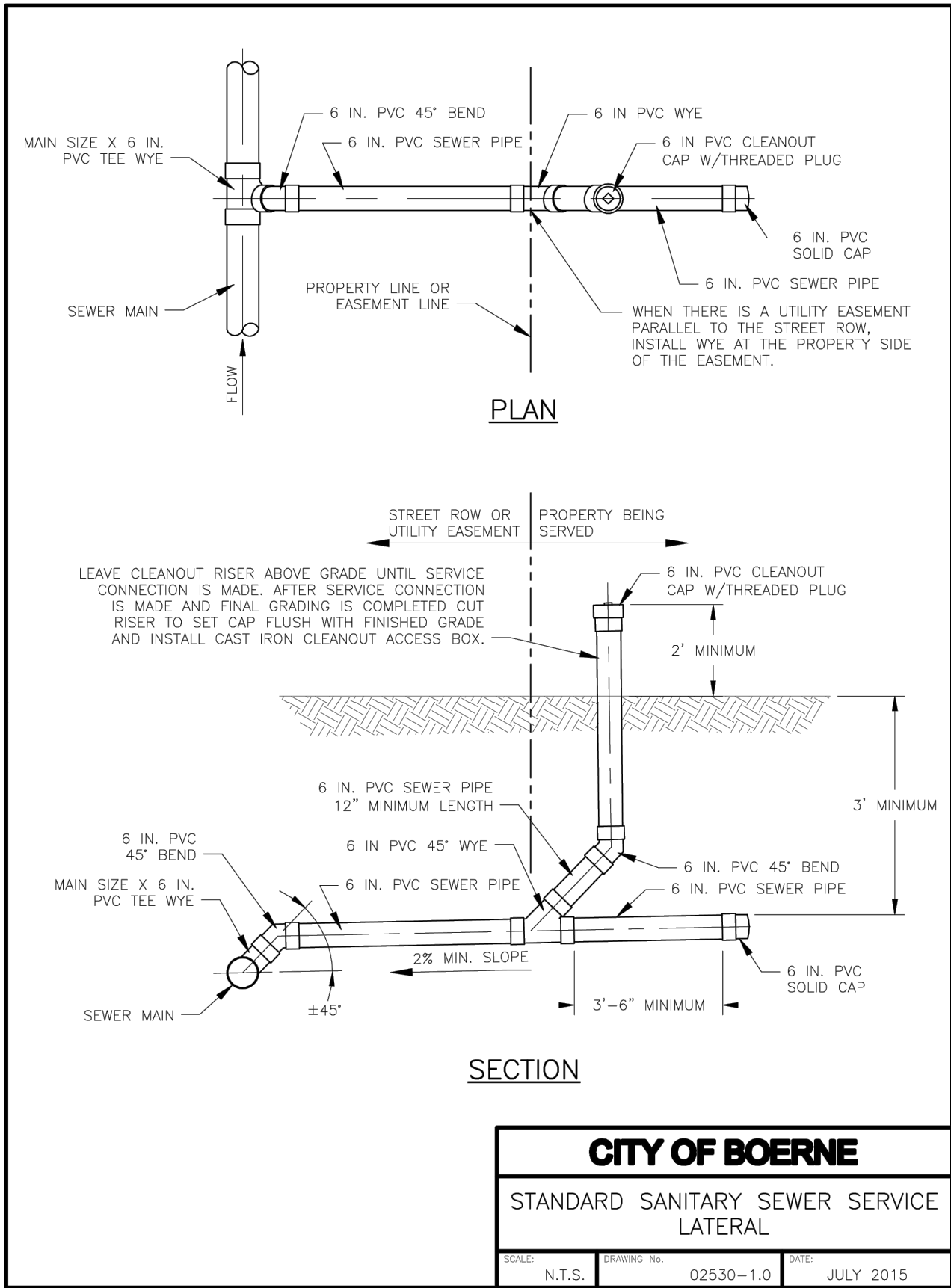
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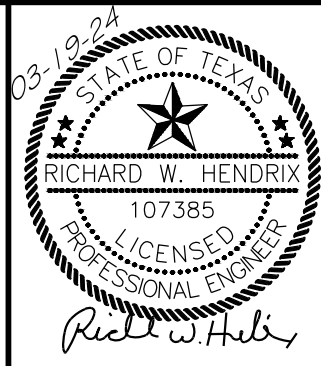
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TYPICAL SANITARY SEWER/WATER CROSSING DETAIL
SEE SEWER PLAN AND PROFILES FOR ACTUAL LOCATION OF SEWER/WATER LINE CROSSING

NOTE: A 20' SEGMENT OF PRESSURE RATED SANITARY SEWER PIPE, SDR-26 ASTM D-2241, SHALL BE CENTERED AT EVERY WATER CROSSING.

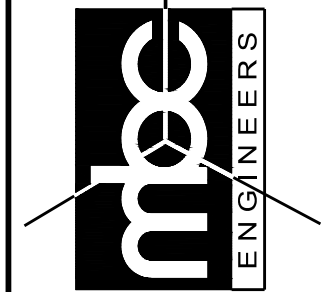
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PRIMARY CONTACT:
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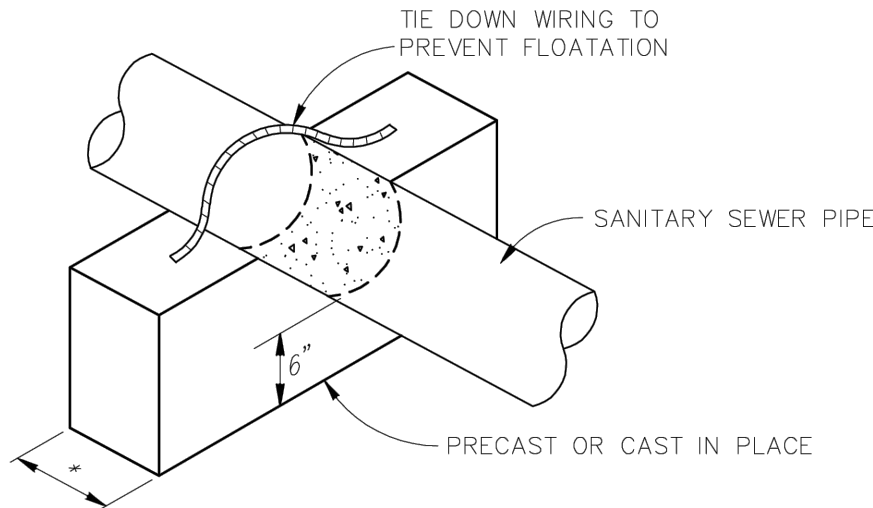
SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
SANITARY SEWER DETAILS

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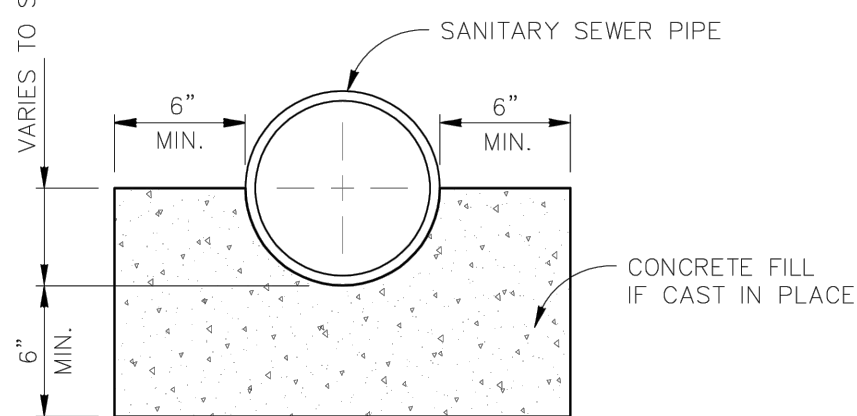
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32653-BOERNE
C11.04

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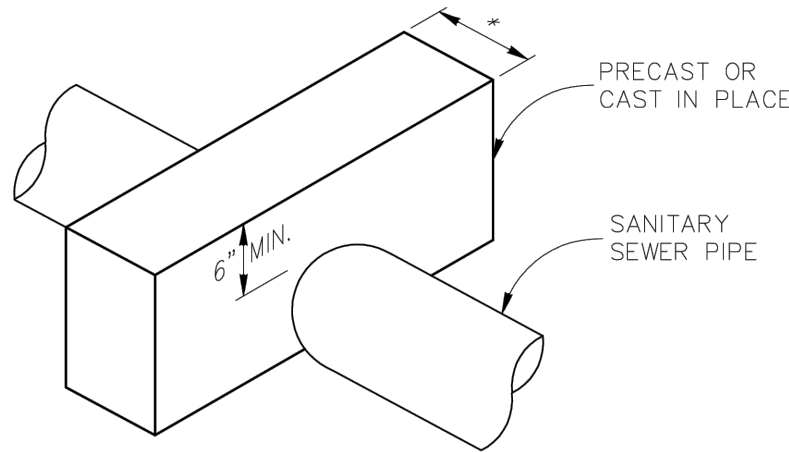
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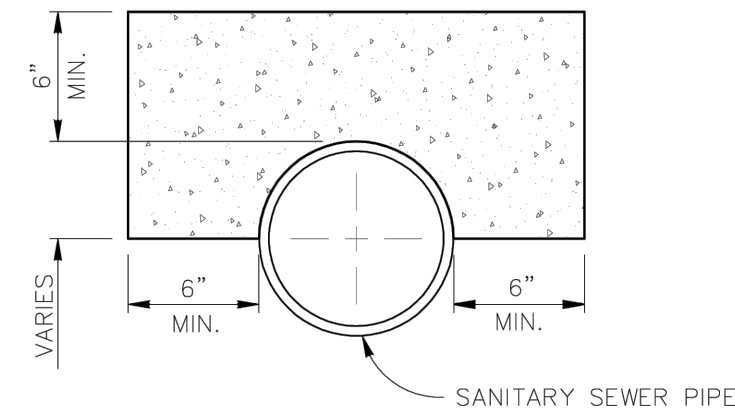
CITY OF BOERNE

SANITARY SEWER CONCRETE CRADLE

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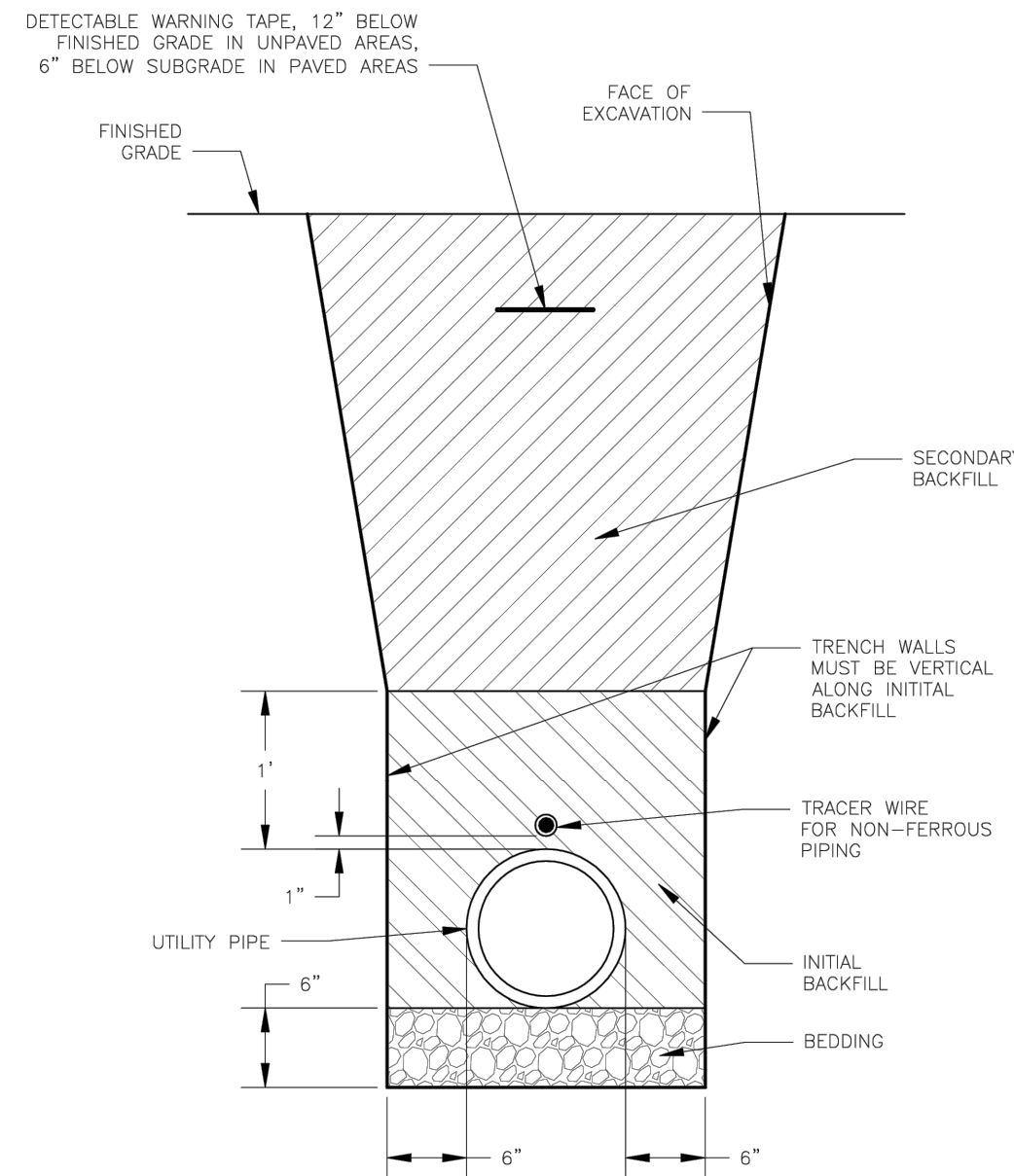
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CITY OF BOERNE

SANITARY SEWER CONCRETE SADDLE

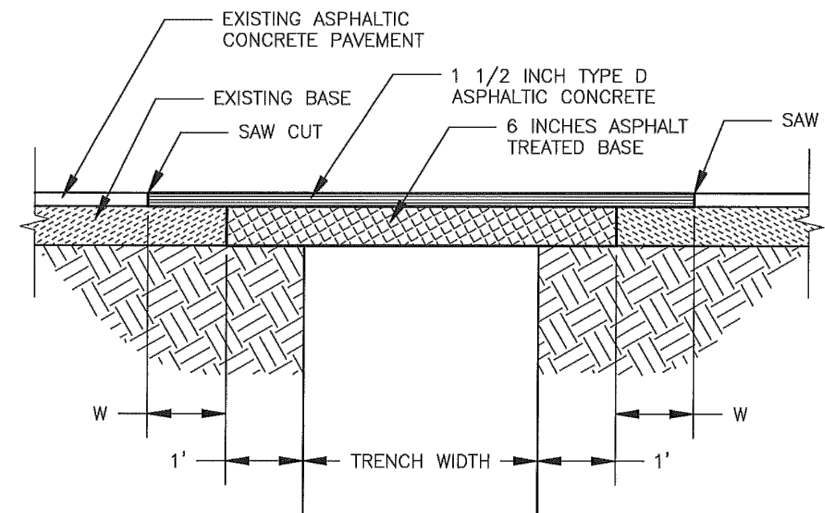
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CITY OF BOERNE

UTILITY PIPE TRENCH

SCALE: N.T.S. DRAWING NO. 02221-1.0 DATE: JULY 2015



PCI RANGE	ADDITIONAL WIDTH OF ASPHALT REPAIR
PCI<50	W=1'
50≤PCI<85	W=10' and CURB-TO-CURB
85≤PCI≤100	CURB-TO-CURB and BLOCK-TO-BLOCK

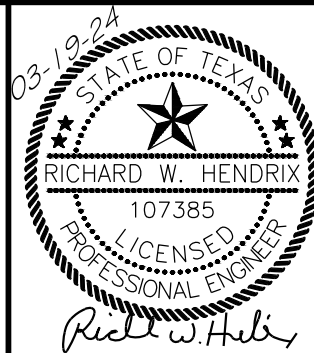
SCHOOL STREET PCI IS BETWEEN 50 AND 85

CITY OF BOERNE

ASPHALTIC CONCRETE PAVEMENT REPAIR

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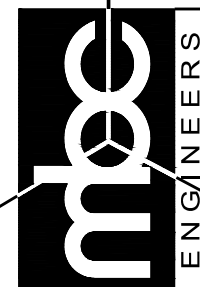
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SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
SANITARY SEWER DETAILS - 2

REVISIONS:	DATE	NO.	DESCRIPTION	BY

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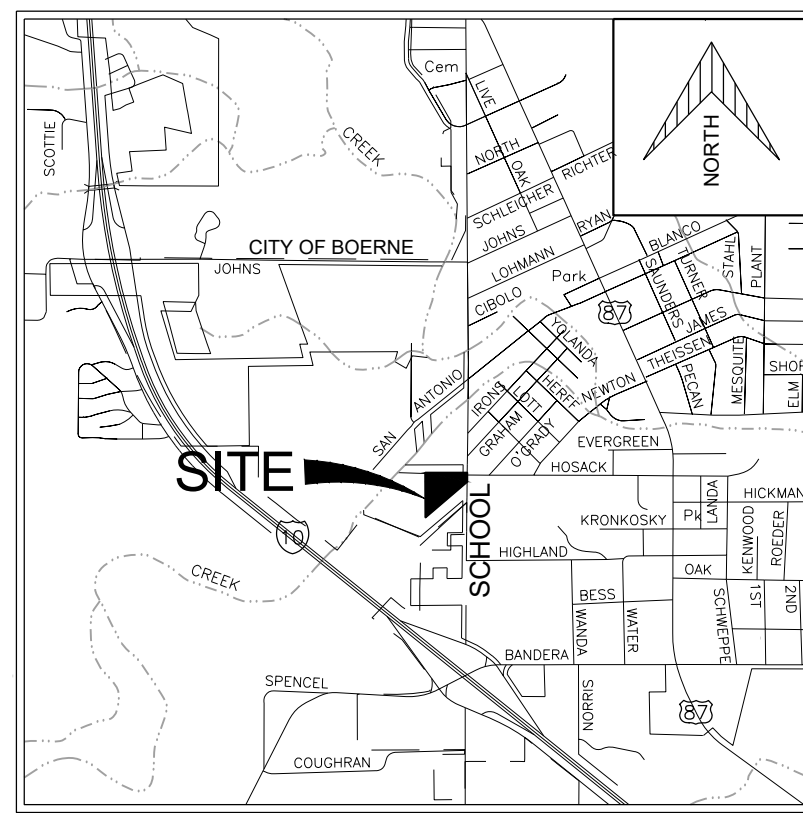
C11.05

SCHOOL STREET RESIDENTIAL

502 S SCHOOL STREET

BOERNE, TEXAS

(WATER DISTRIBUTION SYSTEM)



LOCATION MAP
NOT TO SCALE

MBC NOTES

1. PIPE COVER SHALL BE A MINIMUM OF 4 FEET. (UNLESS OTHERWISE NOTED)
2. ALL MANS ARE ON-SITE MAINS UNLESS OTHERWISE NOTED.
3. ALIGNMENT FOR ON-SITE MAINS ONLY WILL BE OBTAINED FROM PROPERTY LINE ALIGNMENT FOR ON-SITE STAKES. SET AS SHOWN ON PLANS FROM PROPERTY LINE.
4. ALL EXCAVATION IS UNCLASSIFIED. ROCK WILL NOT BE MEASURED FOR PAYMENT. THE PRICE FOR ROCK EXCAVATION SHALL BE INCLUDED IN OTHER APPLICABLE BID ITEMS.
5. MACHINE CHLORINATION PER CITY OF BOERNE SPECIFICATIONS, UNLESS OTHERWISE NOTED.
6. CONTRACTOR TO MAKE ALL TIES AS SHOWN AND LEAVE ALL VALVES AT TIES CLOSED UNTIL AFTER CHLORINATION AND APPROVED BY THE CITY OF BOERNE.
7. ALL FIRE HYDRANTS HAVE 8" BURY UNLESS OTHERWISE NOTED.
8. CONTRACTOR WILL PROTECT ALL CONSTRUCTION STAKES. ALL STAKES DESTROYED WILL BE REPLACED AT HIS OWN EXPENSE PRIOR TO FINAL ACCEPTANCE BY THE OWNER.
9. CONSTRUCTION PROCEDURES AND MATERIAL SPECIFICATIONS SHALL CONFORM TO CURRENT CITY OF BOERNE STANDARD SPECIFICATIONS FOR PUBLIC WORKS PROJECTS AND STANDARD DRAWINGS UNLESS SPECIFICALLY EXCEPTED OR SUPERCEDED BY NOTE(S) ON THESE PLANS.

NOTE

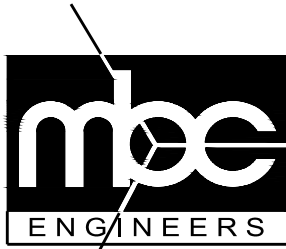
THE CONTRACTOR SHALL INCLUDE IN THE BID THE TRAFFIC AND PEDESTRIAN CONTROL PLANS, DESIGN, AND THE IMPLEMENTATION OF CONTROL DEVICES AS REQUIRED FOR CONSTRUCTION. CONTRACTOR SHALL SEQUENCE CONSTRUCTION SO THAT BUSINESSES HAVE SUITABLE MEANS OF VEHICULAR AND PEDESTRIAN ACCESS.

NOTE

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PRIMARY CONTACT PERSON: RICHARD HENDRIX, P.E.



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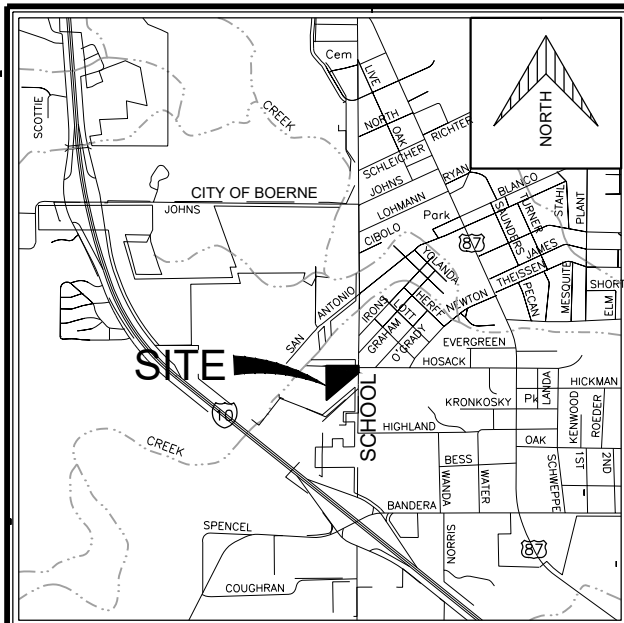
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DATE 01-11-2021

JOB NO.

32653-BOERNE
C12.00



NOTE:
REFERENCE GENERAL NOTES ON SHEET C02.00
PRIOR TO BID AND CONSTRUCTION

NOTE:
CONTRACTOR TO LOCATE AND FIELD VERIFY ALL EXISTING
UTILITIES INCLUDING, BUT NOT LIMITED TO, WATER LINES,
GAS LINES, SEWER LINES AND ELECTRIC LINES.

NOTE:
ANCHORAGE/THRUST BLOCKING JOINT RESTRICTIONS SHALL
BE DONE IN ACCORDANCE WITH CITY OF BOERNE STANDARDS
SPECIFICATION FOR CONSTRUCTION.

JOINT RESTRAINT NOTES:
CONTRACTOR SHALL INSTALL RETAINER GLANDS AT ALL FITTINGS AND PROVIDE
JOINT RESTRAINING HARNESSSES OR FIELD LOCK GASKETS AT ALL JOINTS WITHIN
THE LENGTH SHOWN. CONTRACTOR SHALL INSURE THAT ALL TEES, BENDS,
VALVES, ETC. HAVE A MINIMUM OF 5 FEET OF PIPE WITH NO JOINTS ON EACH SIDE
OF THE FITTING. JOINT RESTRAINTS AND RETAINER GLANDS SHALL BE
CALCULATED BY CITY OF BOERNE APPROVED PROGRAMS AND VERIFIED BY A CITY
OF BOERNE INSPECTOR. CONTRACTOR SHALL INSTALL CONCRETE THRUST
BLOCKING IN ACCORDANCE WITH CITY OF BOERNE STD. DRAWING 02660-1.1 IN
ADDITION TO JOINT RESTRAINTS UNLESS OTHERWISE DIRECTED BY CITY OF
BOERNE INSPECTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE
JOINTS RESTRAINTS AND THRUST BLOCKING WITH THE CITY OF BOERNE
INSPECTOR.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY PLAN AND CONSIDER
EXISTING AND PROPOSED DRAINAGE PATTERNS DURING THE CONSTRUCTION OF
THE PROJECT. IN ORDER TO ACCOMPLISH THIS, IT MAY BE NECESSARY TO PHASE
THE GRADING, CONSTRUCT TEMPORARY BERMS AND SWALES WHILE FACTORING IN
SURROUNDING CONDITIONS TO PROPERLY DIRECT AND CONTROL SURFACE
RUNOFF. ADDITIONALLY, THE CONTRACTOR SHOULD TAKE INTO ACCOUNT THE
TIMING OF CONSTRUCTING PONDS, CHANNELS AND STORM DRAINAGE SYSTEMS.

TRENCH EXCAVATION SAFETY PROTECTION
CONTRACTOR AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR
STRUCTURAL DESIGN/GEOTECHNICAL/SAFETY EQUIPMENT CONSULTANT, IF ANY,
SHALL REVIEW THESE PLANS AND ANY AVAILABLE GEOTECHNICAL INFORMATION
AND THE ANTICIPATED INSTALLATION SITES WITHIN THE PROJECT WORK AREA IN
ORDER TO IMPLEMENT CONTRACTOR'S TRENCH EXCAVATION SAFETY PROTECTION
SYSTEMS, PROGRAMS AND/OR PROCEDURES FOR THE PROJECT DESCRIBED IN
THE CONTRACT DOCUMENTS. THE CONTRACTOR'S IMPLEMENTATION OF THESE
SYSTEMS, PROGRAMS AND/OR PROCEDURES SHALL PROVIDE FOR ADEQUATE
TRENCH EXCAVATION SAFETY PROTECTION THAT COMPLY WITH AS A MINIMUM,
OSHA STANDARDS FOR TRENCH EXCAVATIONS. SPECIFICALLY, CONTRACTOR
AND/OR CONTRACTOR'S INDEPENDENTLY RETAINED EMPLOYEE OR SAFETY
CONSULTANT SHALL IMPLEMENT A TRENCH SAFETY PROGRAM IN ACCORDANCE
WITH OSHA STANDARDS GOVERNING THE PRESENCE AND ACTIVITIES OF
INDIVIDUALS WORKING IN AND AROUND TRENCH EXCAVATION.

UNPLATTED
IVA JULIA CANNON
(VOLUME 1215, PAGE 366
DEED PLAT RECORDS OF
KENDALL COUNTY)

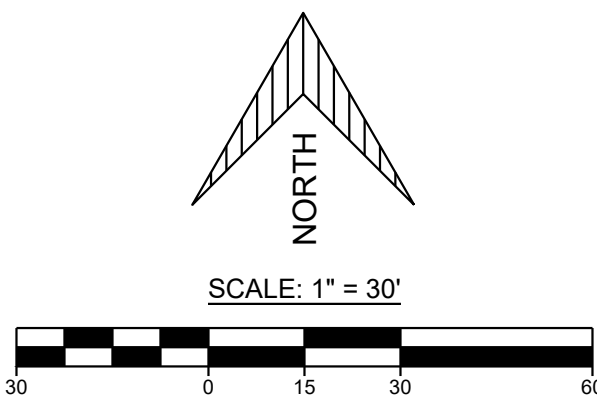
NOTE:
THE CONTRACTOR SHALL INCLUDE IN THE BID THE TRAFFIC AND PEDESTRIAN
CONTROL PLANS, DESIGN, AND THE IMPLEMENTATION OF CONTROL DEVICES AS
REQUIRED FOR CONSTRUCTION. CONTRACTOR SHALL SEQUENCE CONSTRUCTION
SO THAT BUSINESSES HAVE SUITABLE MEANS OF VEHICULAR AND PEDESTRIAN
ACCESS.

NOTE:
ALL ASPHALT DAMAGED WITH CONSTRUCTION SHALL BE REPAIRED PER
CITY OF BOERNE STANDARD DETAILS AND SPECIFICATIONS.

NOTE:
CONTRACTOR IS REQUIRED TO SECURE NECESSARY PERMITS FROM THE
CITY OF BOERNE PUBLIC WORKS TO WORK IN THE SCHOOL STREET
RIGHT-OF-WAY.

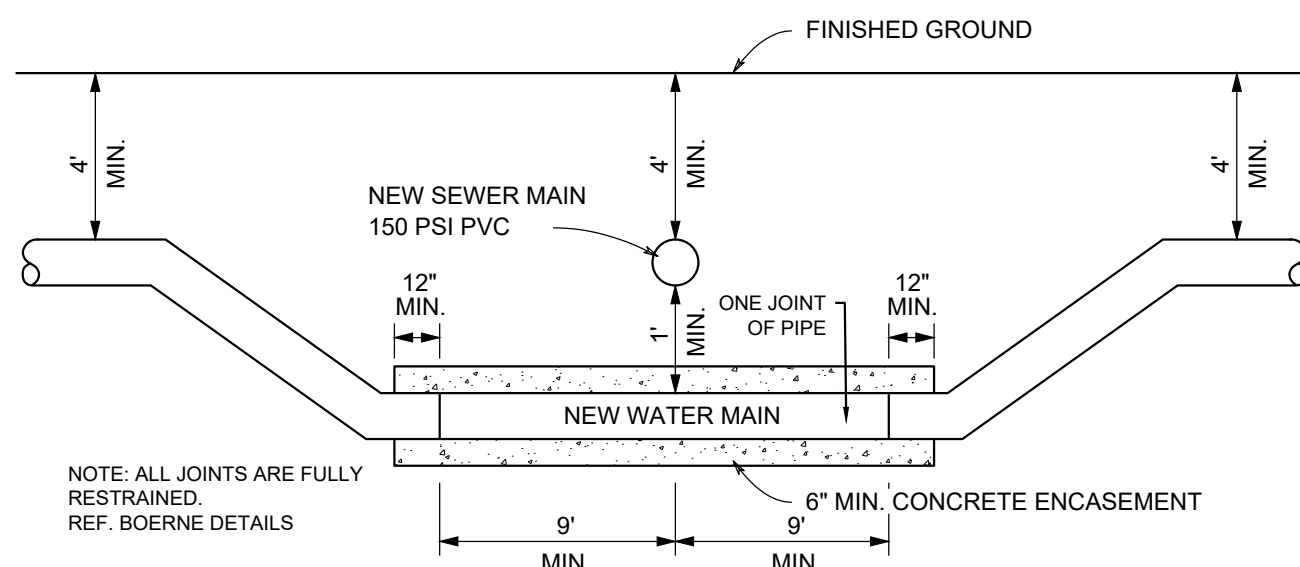
NOTE:
ALL ON-SITE WATER MAINS 4" TO 12" SHALL BE PVC C-900 DR 14, AND
ALL WATER SERVICES 1.5" TO 2" SHALL BE HDPE PLASTIC TUBING
AND WATER SERVICES 1" AND SMALLER SHALL BE COPPER TUBE
TYPE K.

- PLAN NOTES:
1. RESTRAIN LENGTH (RL) ARE TO BE APPLIED TO BOTH SIDES OF
A HORIZONTAL/VERTICAL BENDS AND VALVES ALONG THE
PIPE. THE LENGTH IN LINEAR FEET IS DISPLAYED PROCEEDED
WITH 'RL' AND THE DIRECTION OF THE APPLICATION
 2. ALL THE WATER MAIN IS 8" PVC C-900, DR14 (CL 235), UNLESS
OTHERWISE NOTED.
 3. VERTICAL BENDS ON ALL D.I. PIPE SHOULD BE REINFORCED
WITH RETAINER PLANS AND LOCATED AT EACH BEND JOINT.



LEGEND	
-<-SD-->-	EXISTING STORM DRAIN
-<-SS-->-	EXISTING SANITARY SEWER LINE
---	EXISTING WATER LINE
---	EXISTING GAS LINE
---	EXISTING OVERHEAD TELEPHONE
---	EXISTING UNDERGROUND TELEPHONE
---	EXISTING OVERHEAD ELECTRIC
---	EXISTING UNDERGROUND ELECTRIC
---	PROPOSED DOMESTIC WATER LINE
---	PROPOSED WATER LINE
---	PROPOSED IRRIGATION LINE
---	PROPOSED SANITARY SEWER LINE
---	PROPOSED STORM DRAIN
---	PROPOSED GAS LINE
---	PROPOSED FIRE LINE
---	THRUST BLOCKING
---	EXISTING ELECTRIC METER
---	EXISTING CLEAN-OUT
---	PROPOSED CLEAN-OUT
---	EXISTING WATER VALVE
---	PROPOSED WATER VALVE
---	EXISTING WATER METER
---	PROPOSED WATER METER
---	EXISTING FIRE HYDRANT
---	PROPOSED FIRE HYDRANT
---	PROPOSED FIRE DEPARTMENT CONNECTION
---	PROPOSED REMOTE FIRE DEPARTMENT CONNECTION
---	EXISTING LIGHT POLE
---	EXISTING POWER POLE
---	EXISTING MANHOLE
---	PROPOSED MANHOLE
---	EXISTING GRATE
---	PROPOSED GRATE
---	EXISTING TRAFFIC LIGHT
---	EXISTING GAS METER
---	PROPOSED GAS METER
---	EXISTING GAS VALVE
---	PROPOSED GAS VALVE
---	EXISTING TELEPHONE MANHOLE
---	EXISTING ANCHOR
---	JOINT RESTRAINT LENGTH

Line Table		
Line #	Bearing	Length
L1	S 00°02'30" W	116.84'

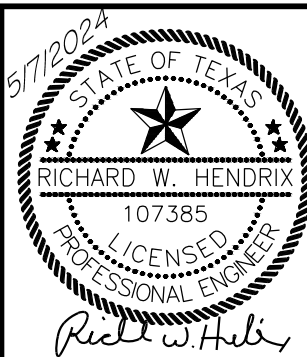


NEW WATER LINE CROSSING UNDER A SEWER LINE

WATER AND SEWER CROSSINGS SHALL COMPLY WITH 30 TAC 290.44 (E) AND 30 TAC 217.53 (D). 290.44 (E)(4)(B) (III) - WHEN A NEW WATERLINE CROSSES UNDER A WASTEWATER MAIN OR LATERAL, THE WATERLINE SHALL BE ENCASED. THE WATER LINE SHALL BE EMBEDDED IN CEMENT STABILIZED SAND FOR THE TOTAL LENGTH OF ONE PIPE SEGMENT PLUS 12 INCHES BEYOND THE JOINT ON EACH END. THE CEMENT STABILIZED SAND SHALL HAVE A MINIMUM OF 10% CEMENT PER CUBIC YARD OF CEMENT STABILIZED SAND MIXTURE, BASED ON LOOSE DRY WEIGHT VOLUME (AT LEAST 2.5 BAGS OF CEMENT PER CUBIC YARD OF MIXTURE). THE CEMENT STABILIZED SAND BEDDING SHALL BE A MINIMUM OF SIX INCHES THICK AROUND THE PIPELINE. AN ABSOLUTE MINIMUM SEPARATION DISTANCE OF ONE FOOT BETWEEN THE WATERLINE AND THE WASTEWATER MAIN OR LATERAL SHALL BE PROVIDED. IN ADDITION, THE PROCEDURES IN §217.53(D) RELATING TO PIPE DESIGN MUST BE FOLLOWED. THE COLLECTION SYSTEM SHALL BE CONSTRUCTED OF PVC WITH A MINIMUM PRESSURE RATING OF 150 PSI USING APPROPRIATE ADAPTERS. THE MINIMUM SEPARATION DISTANCE IS SIX INCHES BETWEEN OUTSIDE DIAMETERS OF THE PIPES SHALL BE MAINTAINED. THE COLLECTION SYSTEM PIPE JOINTS MUST BE LOCATED AS FAR AS POSSIBLE FROM AN INTERSECTION WITH A PUBLIC WATER SUPPLY LINE.

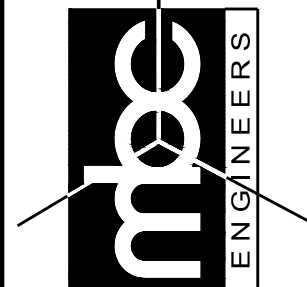
ADDRESS:
502 S SCHOOL STREET
BOERNE TEXAS, 78006

ISSUED FOR PERMIT
05-07-2024



PRIMARY CONTACT:
RICHARD HENDRIX, P.E.

MACINA • BOSE • COPELAND & ASSOC., INC.
CONSULTING ENGINEERS AND LAND SURVEYORS
1035 Central Parkway North, San Antonio, Texas 78232
(210) 545-1122 Fax (210) 545-9302 www.mbcengineers.com
FIRM REGISTRATION NUMBER: T.B.P.E. F-784 & T.B.P.L.S. 10011700



SCHOOL STREET
502 S SCHOOL STREET
BOERNE, TEXAS
OVERALL WATER PLAN

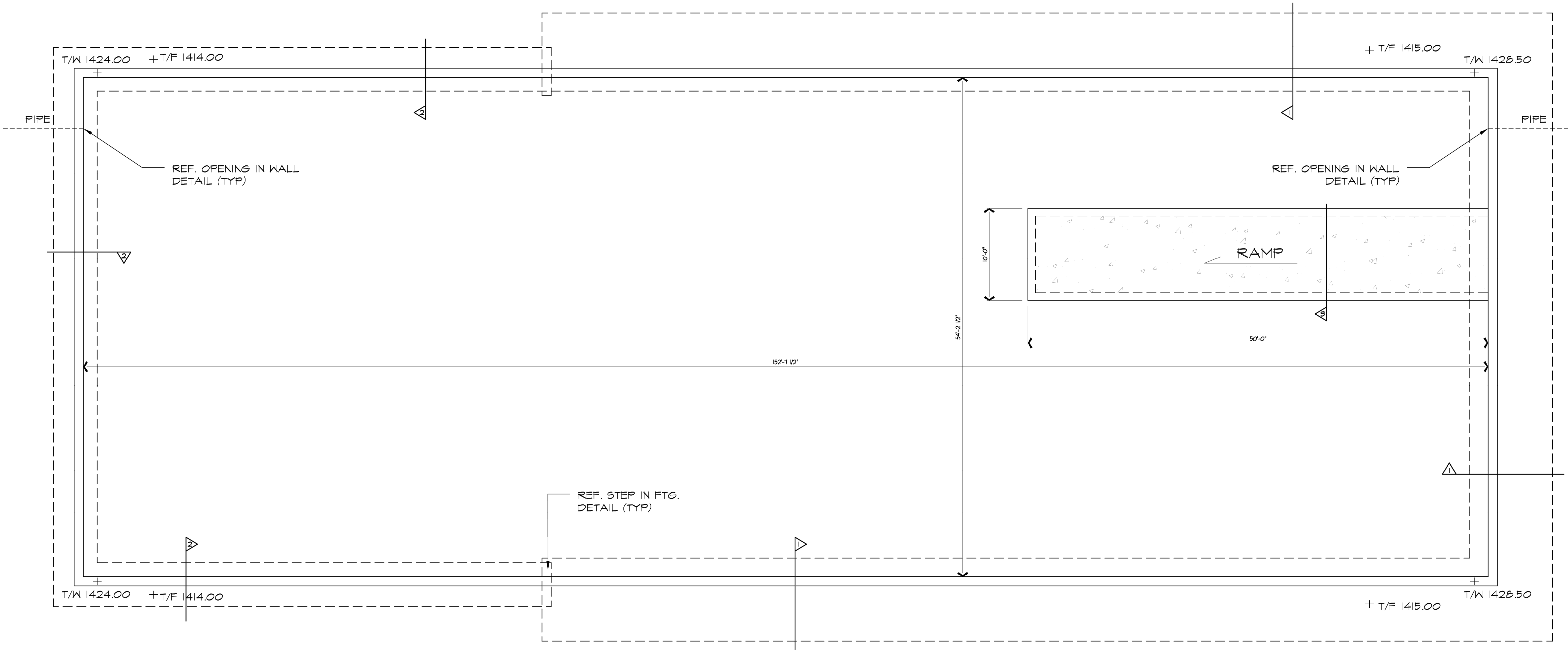
REVISIONS:		DESCRIPTION	DATE	BY
No.	DATE	DESCRIPTION	DATE	BY
1	03/20/2024	EXTEND GRAVITY SEWER REMOVE LIFT STATION	03/20/2024	RWH
2	05/07/2024	CITY SEWER COMMENTS	05/07/2024	RWH

PLAT ID# -
DESIGN - RH
DRAWN - RH
CHECKED - DLA
DATE - 01-11-2021

JOB NO.

32653-BOERNE

C12.01



REQUIRED INSPECTIONS:

1. PRIOR TO CONCRETE PLACEMENT OF FOOTINGS.
2. CONCRETE TEST CYLINDERS OF FOOTINGS.
3. PRIOR TO CONCRETE PLACEMENT OF WALLS.
4. CONCRETE TEST CYLINDERS OF WALLS.

NOTE:

DIMENSIONS AND ELEVATIONS ARE TAKEN FROM DRAWINGS PREPARED BY MEG ENGINEERS DATED 1-11-2021 AND SHALL BE USED FOR DIMENSIONS, ELEVATIONS, LOCATIONS, WIER OPENINGS, AND OTHER CIVIL REQUIREMENTS. CONCRETE CONTRACTOR SHALL COORDINATE CONSTRUCTION OF FOUNDATIONS AND WALLS WITH CIVIL ENGINEER, OWNER, AND OTHER DISCIPLINES FOR THE SEQUENCE OF CONSTRUCTION, EMBEDS AND OTHER REQUIREMENTS.

MLAW
ENGINEERS

F-002685
6303 N. MO'PAC, SUITE C280
AUSTIN, TX 78759
PHONE 512.855.7000

FOUNDATIONS / FRAMING / ENERGY
INSPECTIONS / GEOSTRUCTURAL

STATE OF TEXAS

★

MICHAEL RAY LYNCH
64928
PROFESSIONAL ENGINEER

12-21-2023

502 SCHOOL STREET

CITY: BOERNE

SECTION:

LOT:

CLIENT: BEAZER HOMES

PHASE:

BLOCK:

JOB #: 2300452

PLAN #: DET. POND

DATE: 1-27-23

REVISION:

DRAWN: JJK

CHECK:

△

△

△

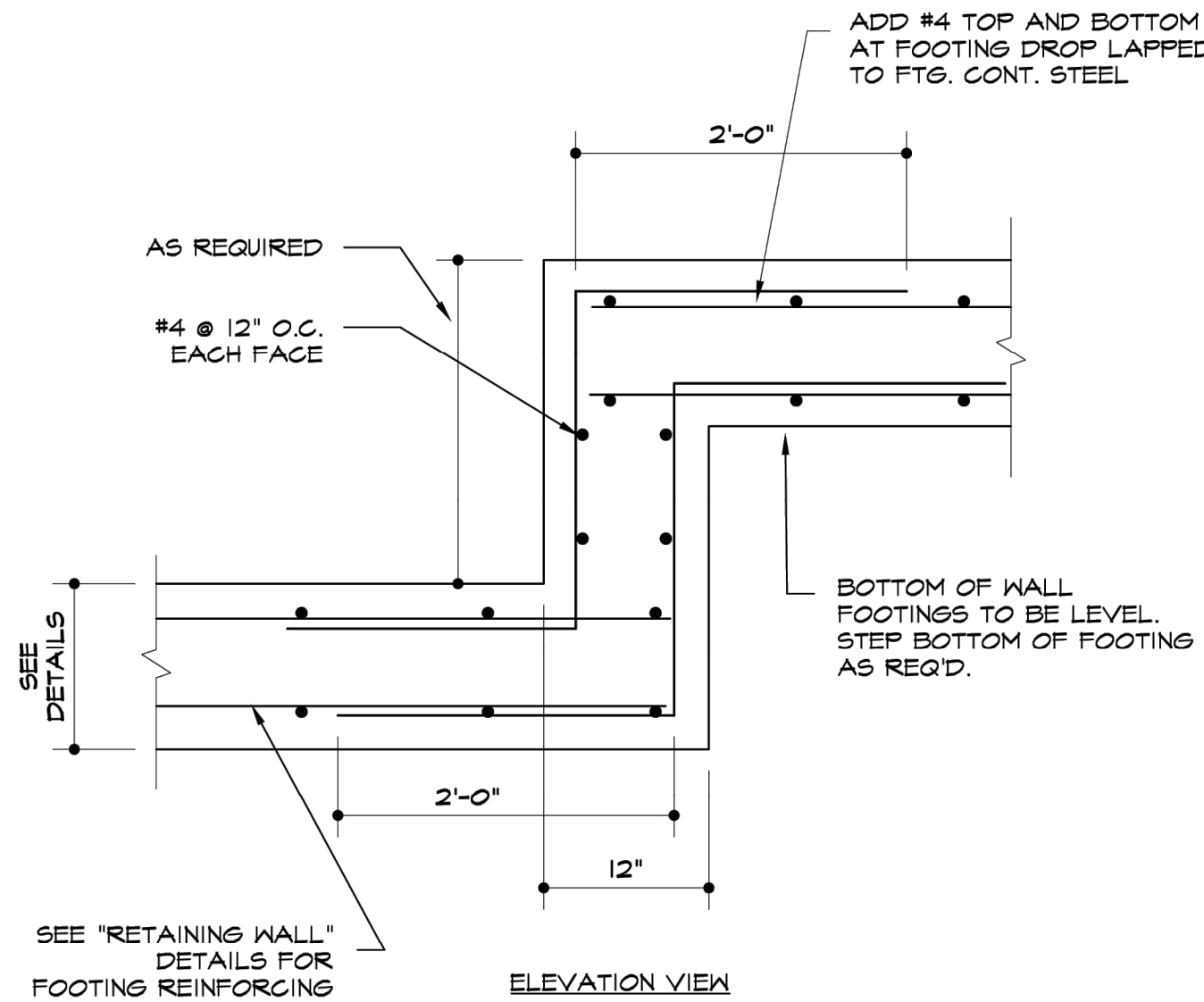
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INSPECTIONS				
INSPECTION	DATE	BY	P/F	

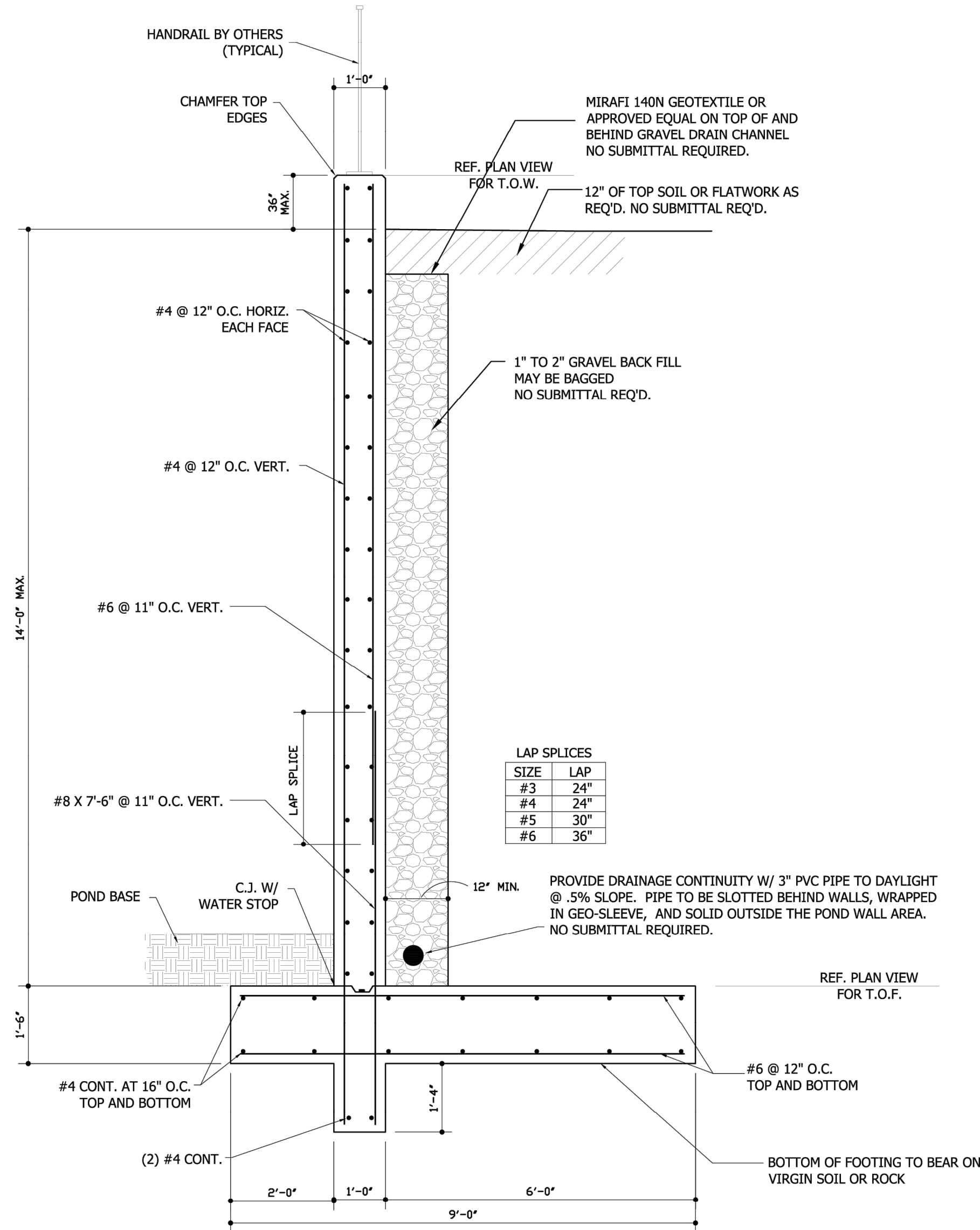
DET. POND PLAN

SCALE: 3/16" = 1'-0"

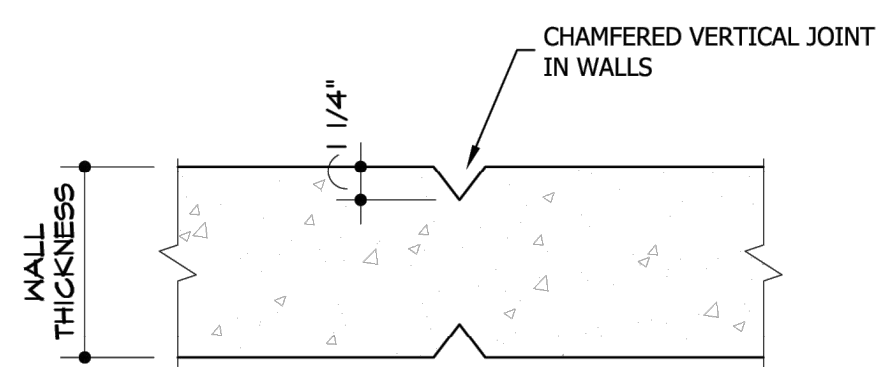
S1 OF 2



TYPICAL STEP IN FOOTING

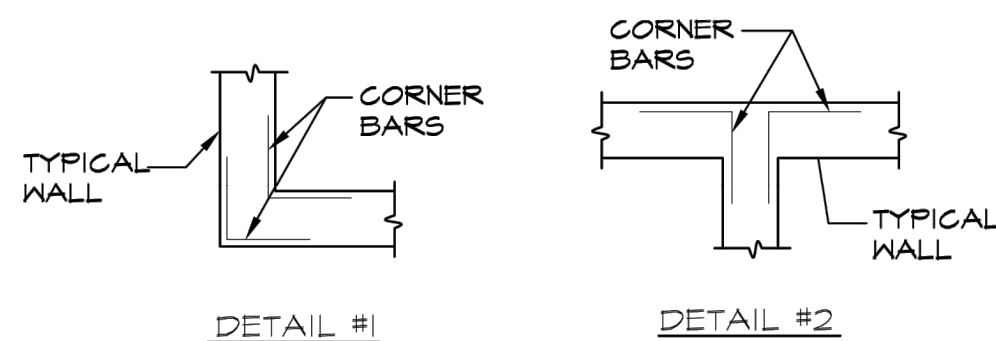


1 RETAINING WALL



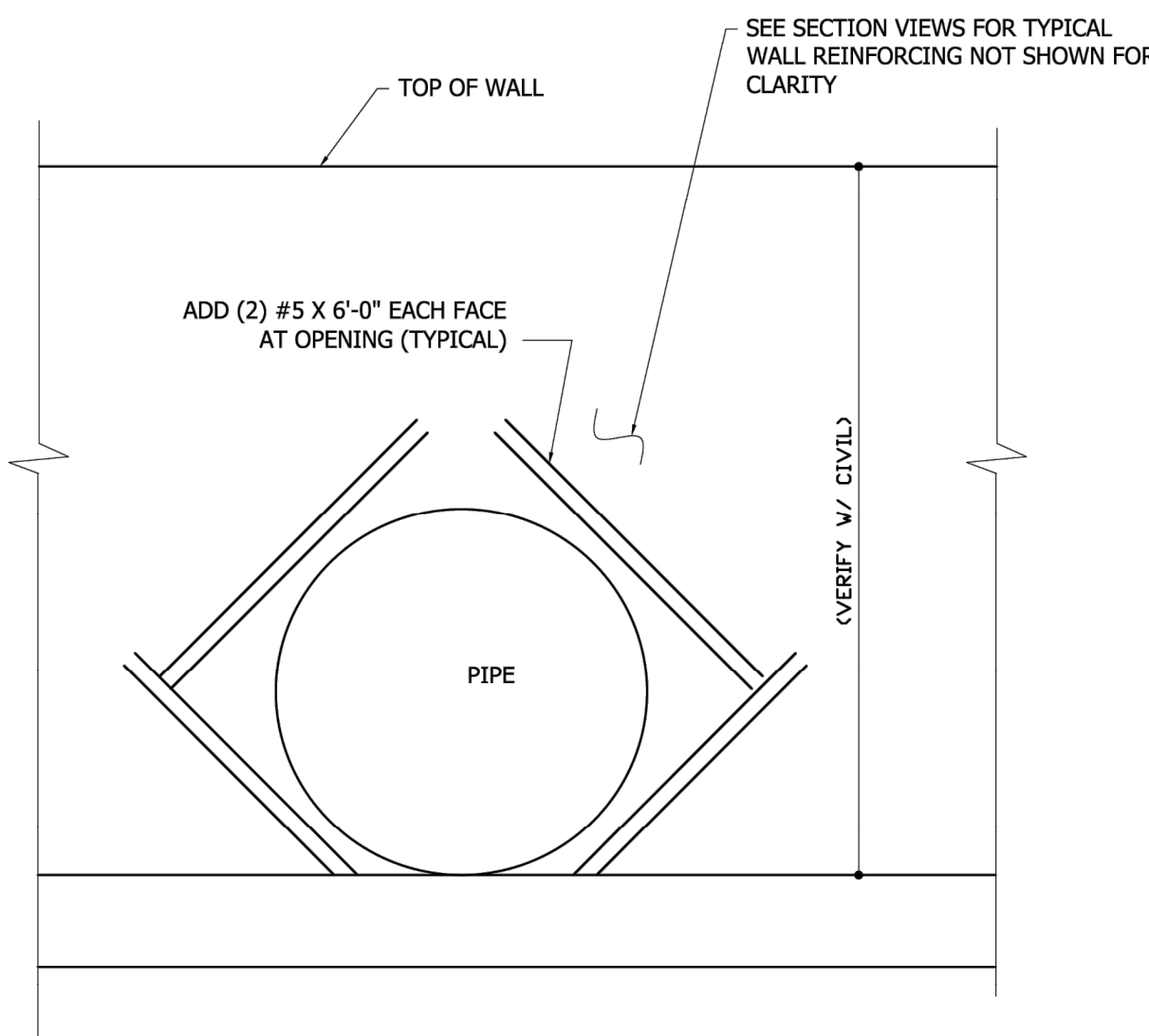
NOTE:
1. JOINT MUST BE FORMED.
2. JOINTS SHALL BE FILLED WITH FLEXIBLE WATERPROOF MATERIAL.
3. SPACE JOINTS AT 20'-0" O.C. MAX.

TYPICAL CRACK CONTROL JOINT

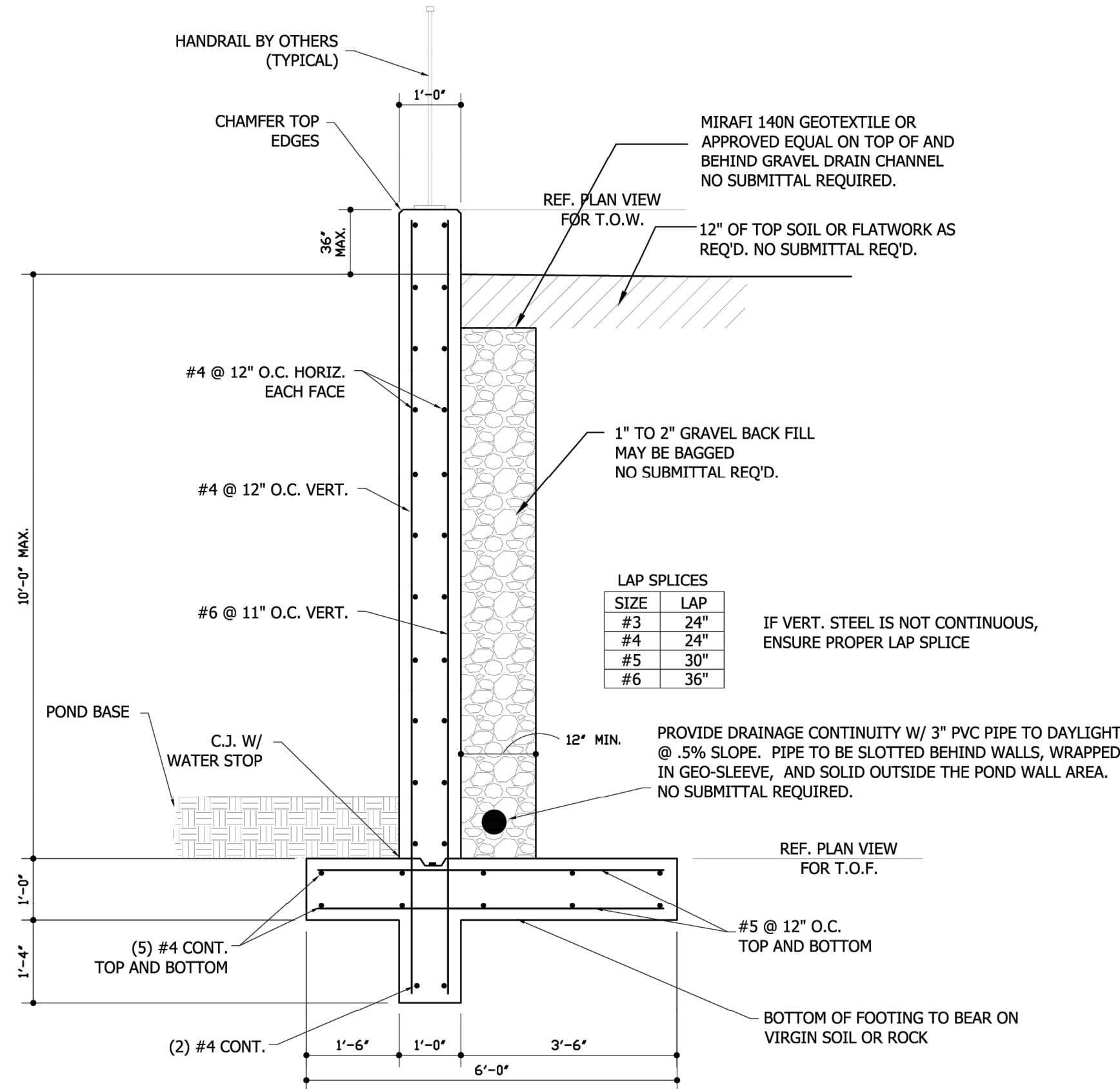


CORNER BARS
1. AT ALL WALL CORNERS, PLACE SAME SIZE CORNER BAR AT EACH REBAR INTERSECTION (SEE DETAIL #1).
2. AT ALL WALL "T" INTERSECTIONS, PLACE SAME SIZE CORNER BAR AT EACH REBAR INTERSECTION (SEE DETAIL #2).
3. ALL CORNER BAR LESS TO BE MINIMUM 30 BAR DIAMETERS (U.N.O. ON PLAN).

TYPICAL CORNER BAR DETAILS



OPENING IN WALL ELEVATION VIEW



2 RETAINING WALL

THIS DESIGN EXCEEDS THESE MINIMUM SAFETY FACTOR CRITERIA:		
SAFTEY FACTORS (S.F.)	MIN.	ACTUAL
1. SHEAR CAPACITY S.F. KEY = 3.0 FOOTING SHEAR = 2.3 WALL SHEAR (BASE) = 3.3	1.5	2.3
2. SLIDING S.F.	1.5	1.553
3. OVERTURNING S.F.	2.0 (SOIL)	2.092
4. BEARING PRESSURE S.F.	3.0	4.0

NOTES:

- ALL DIMENSIONS ARE INTERPRETED FROM DRAWINGS SUBMITTED BY GOVA ENGINEERING AND SHALL BE VERIFIED IN THE FIELD. SEE CIVIL DRAWINGS FOR LOCATIONS & ELEVATIONS OF CONCRETE WORK AND BENCHMARKS.
- ENGINEER'S INSPECTION REQUIRED FOR CONCRETE PRE - POUR SETUP.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS NECESSARY TO LEGALLY COMMENCE WITH THIS WORK.
- OBTAIN LOCATION AND DEPTH OF EXISTING UTILITY LINES PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL DISPOSE OF ALL SPOILS LEGALLY AT AN OFFSITE LOCATION OR AS DIRECTED BY OWNER.
- SHOULD CONDITIONS ARISE THAT ARE NOT COVERED BY DETAILS ON THIS PLAN, CONTACT ENGINEER AT ONCE FOR ADDITIONAL INSTRUCTIONS.

CONCRETE:

- CONCRETE TO HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI.
- CONCRETE SHALL BE WELL CONSOLIDATED USING PROPER MECHANICAL VIBRATION.
- ALL EXPOSED EDGES SHALL HAVE 3/4" CHAMFER OR 1/2" RADIUS EDGE.
- MINIMUM CONCRETE CLEAR COVER SHALL BE
IN SLABS:
3/4" ADJACENT TO INTERIOR SLAB SURFACES
1 1/2" ABOVE SUB-GRADE
IN STIFFENING BEAMS, WALLS AND FOOTINGS:
1 1/2" ADJACENT TO EXTERIOR OR INTERIOR SURFACES
3" FROM SURFACES IN CONTACT WITH EARTH
AT PIPE PENETRATION IN BEAM OR SLAB:
2" FOR REBAR

REINFORCEMENT:

- REINFORCING STEEL TO BE GRADE 60 FOR #4 AND LARGER AND GRADE 40 FOR #3.
- THE FIRST REBAR IN THE FOUNDATION SLAB SHALL BE A MAXIMUM OF 12" AND A MINIMUM OF 6" FROM THE OUTSIDE FORM.

TYPICAL ALL DETAILS

ALL REINFORCING STEEL SIZE IS MINIMUM. CONTRACTOR MAY USE LARGER SIZE BUT MUST MAINTAIN SPACING AS SHOWN.

FOR ALL WATER STOPS USE:
SYNKO FLEX 302 INSTALLED AS PER MANUFACTURER'S INSTRUCTIONS

REMAINING VOID SPACE BEHIND RETAINING WALL AND EXISTING CUT MAY BE FILLED WITH SITE SPOILS AND NOMINALLY COMPACTED AS REQ'D. UNLESS OTHERWISE NOTED AS PER SOILS REPORT.
NO SUBMITTAL REQUIRED ON VOID SPACE BACKFILL OR GRAVEL BACKFILL U.N.O. PER SOILS REPORT.

